

APPLIED SCIENCE READING ROOM

THE *Country* GUIDE

APPLIED SCIENCE READING ROOM

CANADA'S NATIONAL RURAL MONTHLY

In This Issue . . .

- The Once-Over Harvest
- Dairy Truck Co-ops

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Letters

"Modest Sheet" Grew

It is many years since you gave me a very nice writeup on my efforts as the originator of the "Save the Soils Campaign," which has grown and expanded to "Better Farming" and "The Master Farmer." At the time you recognized me, you published a modest sheet, but this has grown in size and improved greatly in content. Discussing The Guide with one of the very best farmers in the Red Deer district recently, he said he was convinced beyond any doubt that if a farmer studied carefully a single copy and put the applicable contents to use, he would reap the price of several years' subscriptions.

Let us look for a moment at your main customer, the farmer, and note some of his characteristics, or may I say peculiarities. He is industrious and not given to clock watching. When the job is to be done, he does it, though it may take a 16-hour day. With very few exceptions he is not given to curtailing or hampering production, hence abundance in his field. He may not have an enormous bank account, but pays his bills almost without fail; and is the best debtor the government has (for proof note his repayments on borrowings). Though he is reported to pay only 1 per cent of Canada's income tax, you would not think so to see him bid at auction sales. The farmer is noted for modesty and good behavior and is seldom seen in police court, and in this respect compares very favorably with business and professional men.

J. M. McDONALD,
Eckville, Alta.

Weather and Horses

I have found your weather forecast here in Ontario, near Barrie, perfect for years and a lot of farmers swear by it. In spite of all the mechanization, a lot of small farmers would be much better off with horses today. I know of farms of 100 or 50 acres which were worked with from 3 to 5 horses, and the farm would have 4 to 6 acres to turnips each year. Now you may find two tractors on the same farms, no turnips, no fencing, no stone-picking, no new building, as they did in the horse days. And before trucks a lot of those farmers would have a team working on the highways.

NAP SHERWOOD,
Barrie, Ont.

"Nothing But Drivel"

Ideas are wonderful, but when a paper prints a letter without any comments on the dangers of coloring margarine—no mention of butter coloring—it's nothing but drivel. We have used margarine and coloring since it was legalized in Manitoba. Our family are grown now and in perfect health. I'm so sick of the attitude of farm magazines to margarine—particularly when 7 out of 10 farmers buy margarine and sell cream and want price supports.

Mrs. R. A. Dow,
Waskada, Man.

I've
found
the
answer!



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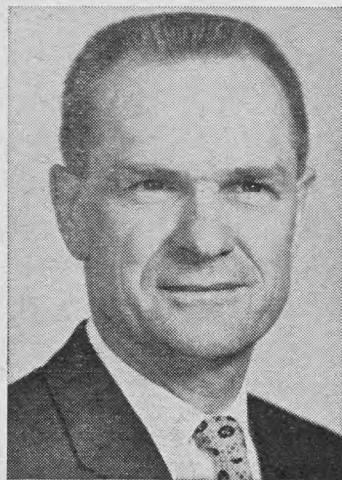
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E V E R Y W H E R E I N T H E W E S T

THE Country GUIDE

Incorporating The Nor-West Farmer and Farm and Home
CANADA'S NATIONAL RURAL MONTHLY

In This Issue



J. W. Clarke

VOC. AG. ED.? This is something that can benefit your family, your community and your country. J. W. Clarke explains why on page 16 of this issue.

A POWER FARMER, who believes in being geared to handle a lot of land with a minimum of help, told his story to Cliff Faulknor while both were riding on a 15-ton tractor—page 14.

PERENNIAL BORDER: If you want flowers that bloom all summer long, make a start this fall. Doris Meek offers her suggestions on page 38.

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COVER: Shorthorn herd sire and cows in a cool spot on Yellow Briar Farm, Mono Mills, Ont.—Jim Rose photo.

Editor: LORNE HURD
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GWEN LESLIE

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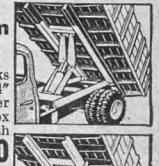
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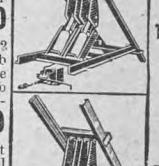


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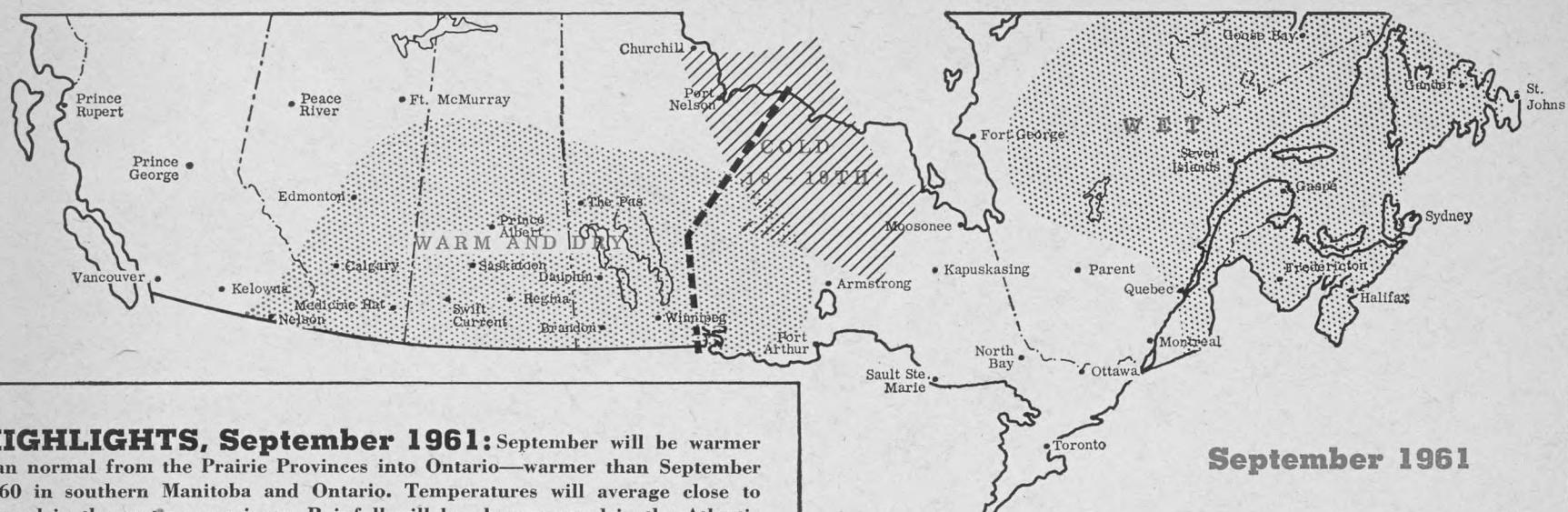
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Weather Forecast

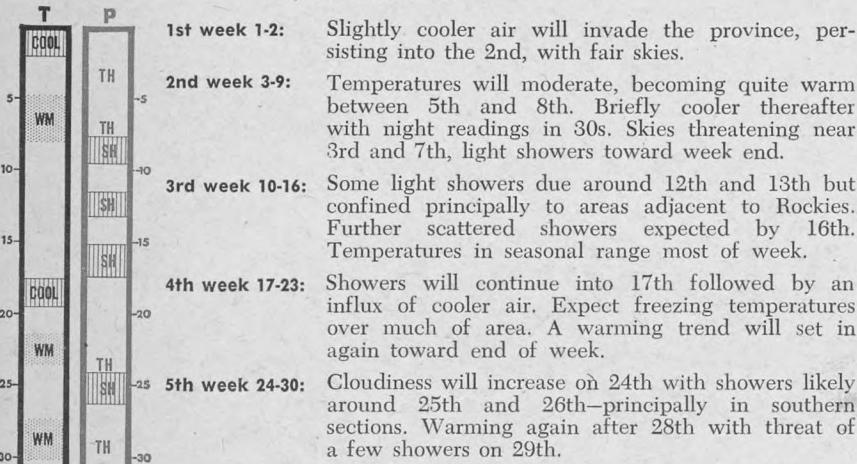
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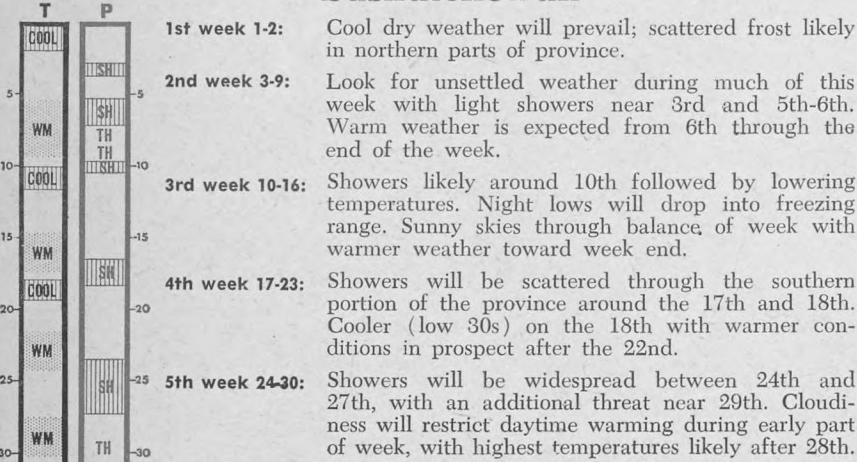
HIGHLIGHTS, September 1961: September will be warmer than normal from the Prairie Provinces into Ontario—warmer than September 1960 in southern Manitoba and Ontario. Temperatures will average close to normal in the eastern provinces. Rainfall will be above normal in the Atlantic Provinces and eastern Quebec—subnormal elsewhere.

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)

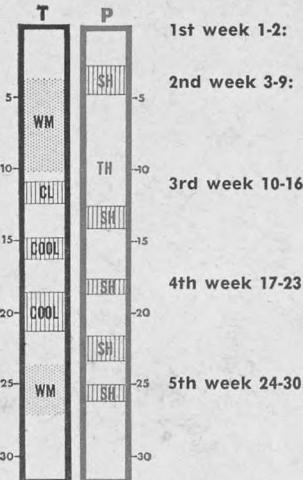
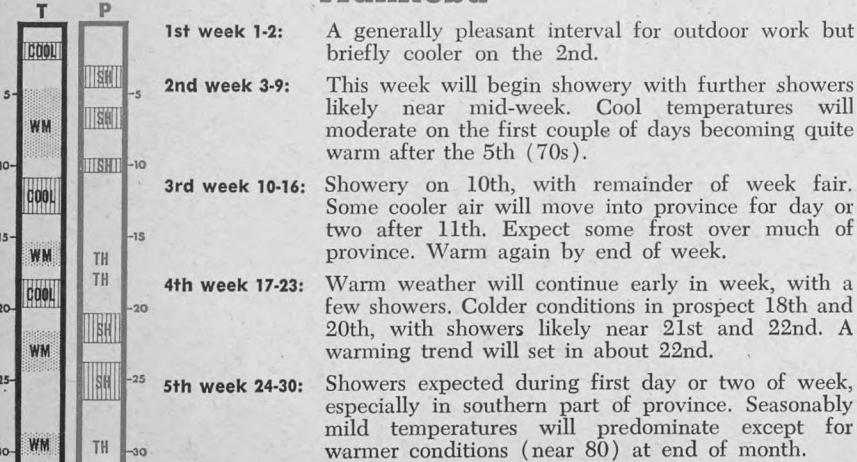
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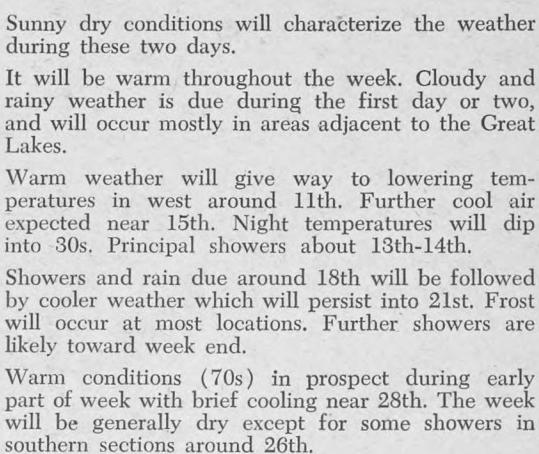
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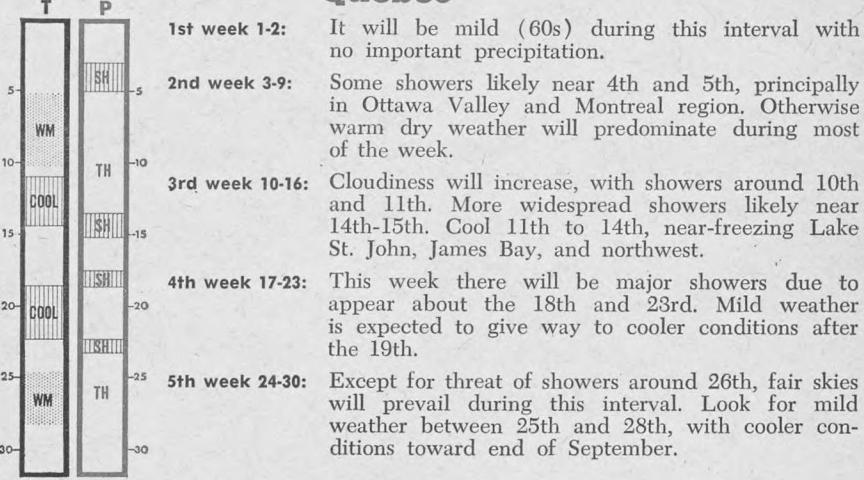
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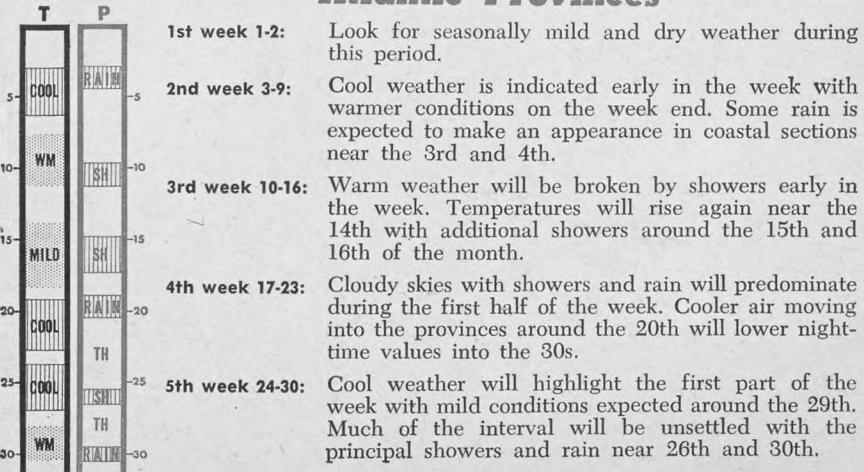
Ontario



Quebec



Atlantic Provinces





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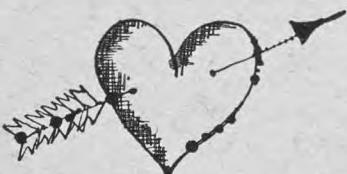
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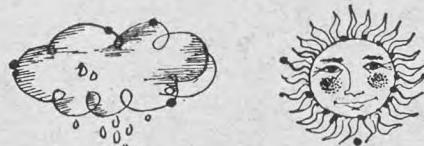
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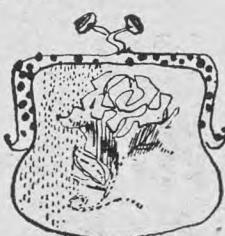
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HAMMOND ORGAN WESTERN EXPORT CORP.

In Memoriam

OUR beloved chief is dead. John E. Brownlee, Q.C., passed away on July 15 at his home in Calgary, following several weeks of rapidly failing health. For the past 13 years he had held the positions of president and general manager of the United Grain Growers Limited, and the presidency of The Public Press Ltd., which publishes *The Country Guide* and the *Canadian Cattlemen*. Mr. Brownlee's death, at the age of 76, brings to an end more than half a century of distinguished service in the fields of law, politics and agriculture.

He was born in Port Ryerse, a village on the north shore of Lake Erie. He took his early education in Lambton County, Ont., and his high school and normal school training in the neighboring city of Sarnia. Then followed a couple of years of teaching in his home town of Bradshaw. In the fall of 1904 he enrolled at Victoria College, affiliated with the University of Toronto, from which he graduated in 1908 with a Bachelor of Arts degree.

Like many young men of his time he decided to "go West" and finally located at Calgary, where he took up the study of law and was called to the bar in 1912. In that year he married Florence Agnes Edy of Toronto. The Brownlees had two sons, John and Alan. John operates a photographic studio in Edmonton, while Alan, who like his father chose law as a career, practises in the Alberta capital in the firm which his father established and in which he remained a senior partner until his death.

MR. BROWNLEE'S career was intimately interwoven with the history of western development, and particularly with that of the farm movement. This was clearly brought out in R. D. Colquette's book "The First Fifty Years." Colquette reports that Mr. Brownlee, while still a student-at-law, undertook his first legal work for the Grain Growers' Grain Co. Ltd. This brought him into close contact with the United Farmers of Alberta, for which he became legal counsel. When Alberta Farmers Co-operative Elevator Co. was organized in 1913, he was made its solicitor. He played an important part in the negotiations which led to the 1917 amalgamation of that organization with the Grain Growers' Grain Co. Ltd. to form United Grain Growers Ltd. That same year he became general counsel for U.G.G.

When the United Farmers of Alberta entered politics in 1921 and were successful at the polls, Premier Herbert Greenfield appointed Mr. Brownlee Attorney-General, although he had not been a candidate in the election. He was given the Ponoka constituency which he represented in the Alberta Legislature for the next 14 years. On the retirement of Mr. Greenfield in 1935, Mr. Brownlee became Premier of the Province, a position he held for 10 years.

It was while he was Attorney-General that the "sign up" for the Alberta Wheat Pool took place. He acted on the committee appointed to design the organizational structure, which included the drafting of the Pool membership contract. Later, when the Saskatchewan and Manitoba Pools were organized, and the three Pools decided to form a central selling agency, he helped to draw up the inter-provincial agreement, and for a time he acted as counsel for the Alberta Pool and the central selling agency.

Of the work of the Farmers' Government of Alberta, Colquette records that Mr. Brownlee viewed with satisfaction two achievements in particular. The first was the sale to the CPR and CNR of the Provincial Railways in which the Province had invested heavily. This transaction was negotiated at a price which carried the approval of all sections of the province. The other was the return to Alberta of its natural resources, including its oil rights which are returning so much wealth to the province now. During the time of his premiership the University of Alberta conferred upon Mr. Brownlee the honorary degree of LL.D.

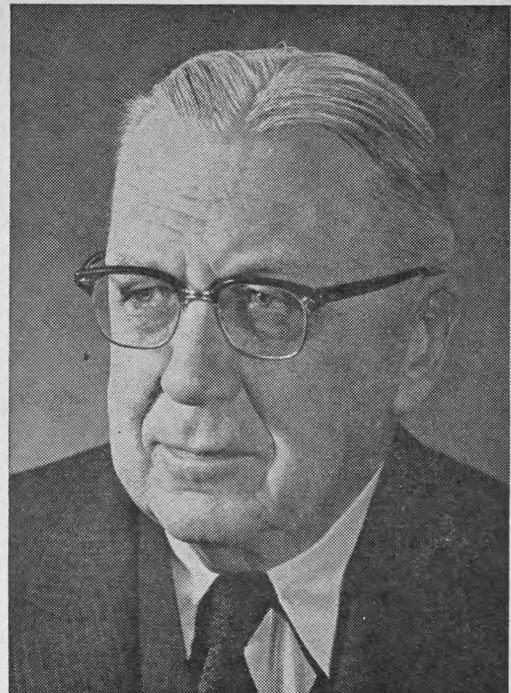
While he was Premier of Alberta he served on the Macmillan Royal Commission on Banking and Currency, appointed by the Bennett Government. The creation of the Bank of Canada in 1935 was the direct result of the Commission's report.

UPON the defeat of the U.F.A. Government in 1935, Mr. Brownlee opened a law office in Edmonton. He again became general counsel for United Grain Growers Limited. In 1942, he was appointed to the Company's Board of Directors, and 6 years later, when U.G.G. President R. S. Law resigned, he was named president and general manager.

Mr. Brownlee took over the reins of this pioneer grain co-operative at a difficult period. The British Wheat Agreement had been in force only a few months and the first International Wheat Agreement was negotiated and signed shortly thereafter. With the removal of price controls came the full shock of inflation. It greatly increased the cost of operating the Company's facilities, of keeping them in repair and of making necessary replacements.

But the greatest problem of all to be faced was the huge grain surplus. The Company was able to assume its share of the responsibility for providing additional storage space at shipping points. A vast annex-building program was undertaken and completed. In addition, the Company greatly expanded its country elevator system by purchasing elevators from line companies. These large transactions called for corresponding increases in the fixed and working capital of the Company, as well as innovations in its financial structure. Much of the credit for success in these undertakings goes to Mr. Brownlee. His leadership in this connection is reflected in the continuously strong financial position of the organization, and in the fact that the capacity of its country elevator system doubled during his term of office.

Mr. Brownlee's efforts since 1948, however, were not confined to the welfare of the Company and its more than 50,000 farmer shareholders. In fact, his colleagues say that when critical policy decisions were to be made, Mr. Brownlee placed the long term best interests of the prairie farmers as a whole ahead of those of the Company. This characteristic, coupled with his keen analytical mind and sound judgment, led others to seek his advice, both in and out of the farm movement, and particularly government administrators and leaders. On frequent occasions too numerous to detail here, he presented brilliant submissions on current issues of the day to such



The Late John E. Brownlee

bodies as the Board of Transport Commissioners, the House of Commons Standing Committee on Agriculture and Colonization, as well as several royal commissions and committees of enquiry. The most recent of these was his spirited presentation to the MacPherson Royal Commission on Transportation in defence of the Crow's Nest Pass Agreement.

Mr. Brownlee has served agriculture on numerous important bodies. He was a member of the advisory committee to the Canadian Wheat Board, a Canadian delegate to International Wheat Agreement conferences and the founding convention of the International Federation of Agricultural Producers. For many years he was a highly valued director and member of the Executive Committee of the Canadian Federation of Agriculture.

YOU might well ask how Mr. Brownlee served so capably in so many different ways. To those who knew him well this was no secret. During his lifetime he developed a tremendous capacity for thorough work and a depth of responsibility which few other men have equalled. He had an almost uncanny ability to get to the heart of a problem and lost no time in doing so. It was customary for him to work long days and far into the night, and to make sure that his time and efforts were always devoted to constructive purposes.

However, John Brownlee will not only be remembered for the breadth of his contribution, his dedication to duty and his legal, political and business acumen. He displayed other qualities. He was unusually charitable toward others, and showed a sympathetic understanding for the problems of the people with whom he worked and served. Through every experience he maintained his self-composure and often exhibited a fine sense of humor. People who met him for the first time invariably commented about his gentlemanly manners. But perhaps his greatest attribute of all was his humility. Few men of his stature display such modesty.

It is little wonder that John Brownlee endeared himself to all who had the good fortune to know him. Farmers across Canada have lost a devoted servant, an eloquent and effective spokesman and a wise counselor and friend. His presence will be missed greatly in the nation's agricultural and business councils. And while his work was primarily in the cause of the West, his concern was always for the nation as a whole. History will record that he was one of the truly great Canadians.

What's Happening

7

HOG NUMBERS INCREASE

The Bureau of Statistics reports that numbers of hogs on farms in Canada at June 1 was about 7 per cent greater this year than last, having increased from 5,483,000 to 5,889,000. The average increase in the West was 14 per cent compared to 2 per cent in the East. There were fewer hogs over 6 months old in most provinces, but the number of pigs from winter and spring litters, under 6 months old at June 1, was about 12 per cent greater than last year. Hog marketings are therefore expected to be greater than last year during the summer and fall months.

The spring crop was estimated at 4.7 million head, an increase of 11 per cent over last year. The increase ranged from 22 per cent in the West to 4 per cent in the East.

Sow farrowings during the June to November period this year are expected to be up 18 per cent over the same period of 1960 (24 per cent in the West and 13 per cent in the East). However, in view of the prevailing drought conditions in Western Canada, this increase in fall farrowings may be considerably modified.

N.S. INTRODUCES NEW BEEF POLICY

Believing that there is need to increase beef production in Nova Scotia, and recognizing expansion of the industry is economically desirable, the provincial government has announced the implementation of a Beef Cattle Transportation Policy, designed to encourage an enlarged beef production enterprise.

The policy is intended to assist farmers in the purchase of commercial and purebred female beef cattle, between the ages of 6 months and 5 years, regardless of whether the animals are purchased at approved annual sales within the province or from outside sources. Details of the policy can be secured by getting in touch with the local Agricultural Representative, or with the Animal and Poultry Services Branch at Truro.

3-POINT PROGRAM TO AID SHEEP INDUSTRY

Federal Agriculture Minister Alvin Hamilton has announced the following 3-point program to assist Canada's sheep industry:

(1) Wool will be supported by means of a deficiency payment, calculated as the difference between the stabilization price of 60¢ per lb., and the average market price per lb. f.o.b. Toronto for the basic grades Western Range Choice half blood staple and Eastern Domestic quarter blood staple combined.

(2) Lambs will continue to be supported by a standing offer to purchase of \$19.35 per cwt., live basis at public stockyards, Toronto, with appropriate differentials for other markets throughout Canada.

(3) The Government will pay producers of A and B lamb carcasses of desirable weights a premium of \$2.00 and \$1.00 respectively.

SEED GROWERS MEET AT BANFF

The Board of Directors of the Canadian Seed Growers Assoc. expressed concern at the organization's annual meeting held at Banff, Alta., that some seed plants being used to clean pedigree seed are not staffed or equipped to do an adequate job. Acting on this, the meeting agreed to request the Canada Department of Agriculture to vigorously enforce the Seeds Act to make sure all such plants can do a thorough job.

Delegates also voted in favor of reducing present tolerances of barley plants in crops of Registered oats and wheat by 50 per cent, and of establishing a new high quality seed grade for Registered 1st generation cereals. The latter decision is to be referred to the Board of Directors for study and action.



Retiring CSGA president J. Murray, Solsgirth, Man., (l.) congratulates incoming president G. Rickard, Bowmanville, Ont., on his new duties.

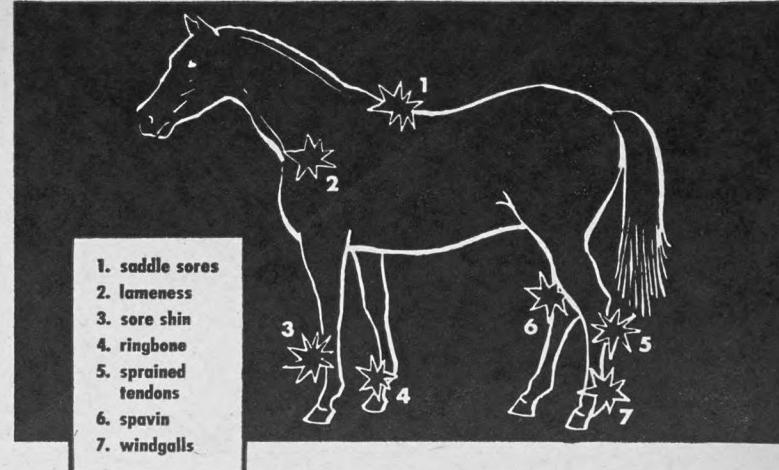
In the past fiscal year the CSGA reported that costs exceeded revenues by \$12,000, and the Finance Committee brought in a deficit budget for the forthcoming year. It is expected additional revenue will be required from the Federal Government to maintain the level of service now offered by the Association.

In connection with the Association's 1960-61 educational-publicity program, there was a surplus of \$20,000. For next year, the organization plans to conduct a \$50,000 publicity campaign, including some work in areas of the U.S.A. and Europe.

ONTARIO'S FLUID MILK PRODUCERS PETITIONED

The Ontario Whole Milk Producers League has taken the first step to initiate a marketing plan for fluid milk. A petition is being circulated among fluid milk shippers asking that producers be given the opportunity to vote on a plan for a marketing board. If 15 per cent of the 12,000 fluid milk producers sign the petition, it will be presented to the Ontario Milk Industry Board. A marketing plan for fluid milk is now being drafted. It will be placed before producers if the petition is successful. Meetings of producers will be held throughout the province to discuss the proposed plan in detail before a vote on the plan is taken.

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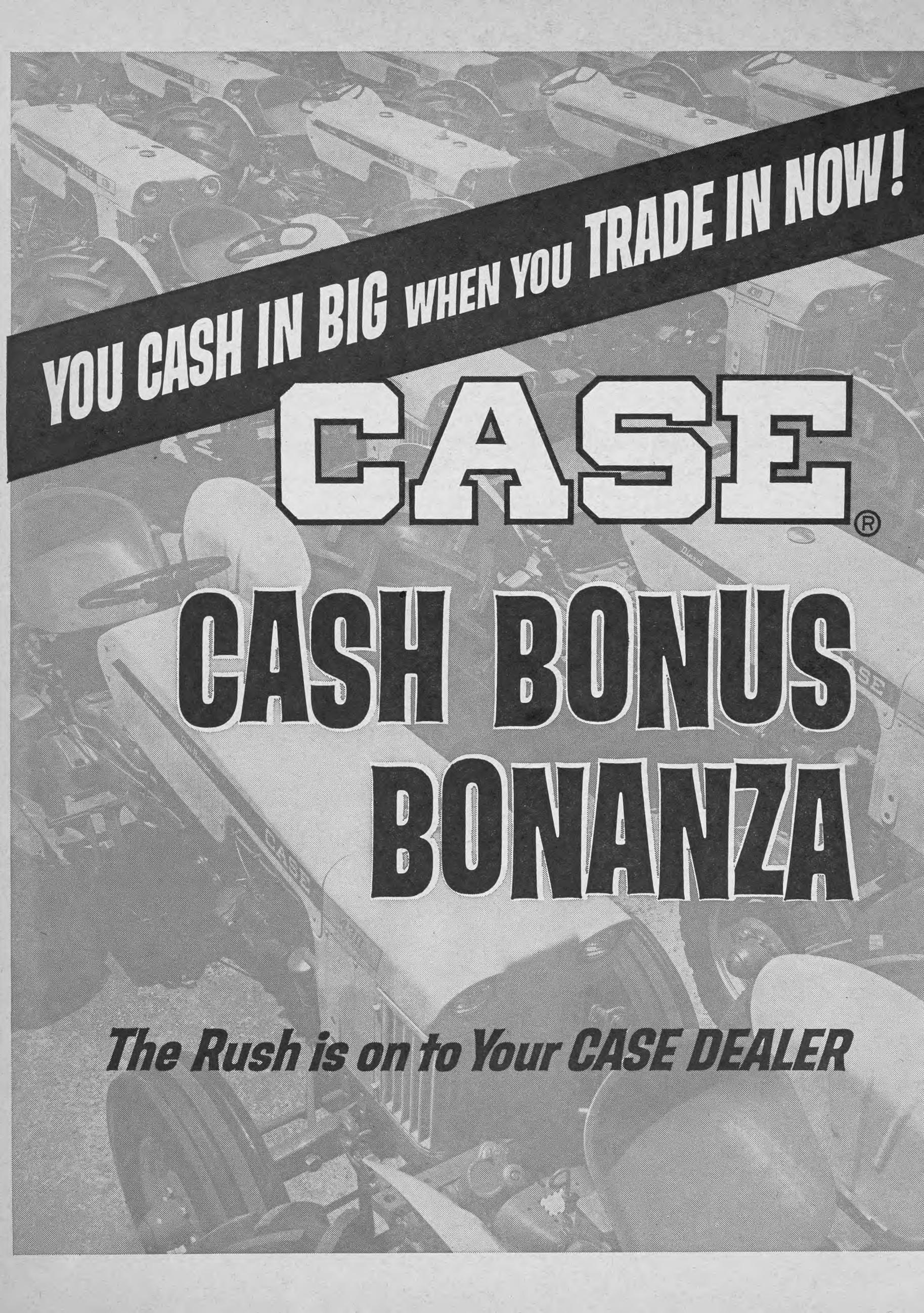
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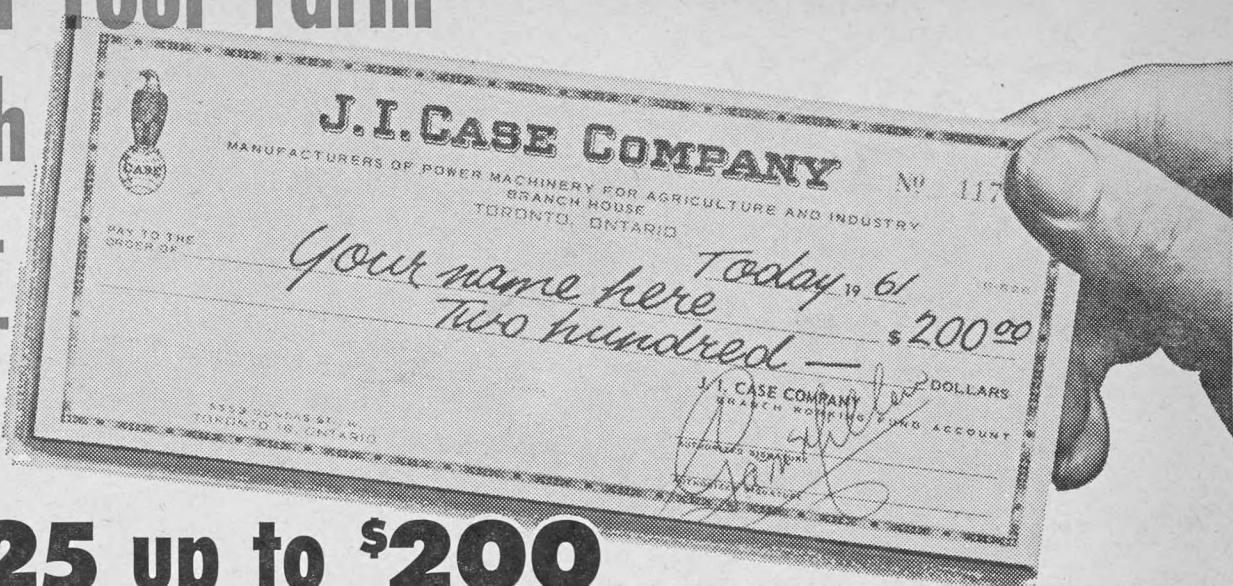
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CAN TRUCKING CO-OPS HELP DAIRYMEN?

DAIRY farmers who form co-operatives to haul their milk to market are finding it pays off in surprising ways.

Take the 10-year-old Nipissing-Sudbury Regional Co-operative in Northern Ontario, for instance. It straightened out the problem of favoritism that plagued its members when private truckers hauled the milk. It carried on for 6 years without raising its fees, although the trucker that it bought out intended to raise them immediately. It saved its members \$200,000 in the decade, according to the figures of its manager. And it has expanded and diversified its trucking business until the parent co-op with which it has merged, claims that trucking is the most profitable of all its various enterprises.

Other milk trucking co-ops have enjoyed success as well. Dairy farmers around Brampton bought out their trucker several years ago and astounded even themselves when they started to count the profits from the venture. In another case, six farmers shipping milk for manufacturing to Sault Ste. Marie were paying 50 cents a can in 1958, and faced another rise in price. Instead of paying the increase, they decided to buy out the trucker. They have added 3 more shippers to their number since, built up \$1,800 in reserves, and slashed their charges from 50 to 30 cents a can as well.

The North Shore Transport Co-op, which also hauls to Sault Ste. Marie, has been operating successfully for almost a decade. The big Brant District Co-op, hauling to Brantford, ran headlong into furious opposition from dairies, established truckers, and some farmers too, when it was started a year ago, but it has survived those early problems.

A few others have been established too, and it now looks as if the movement might spread rapidly in coming years.

Assistant Deputy Minister of Agriculture in Ontario, Everett Biggs, gave the idea his blessing a couple of years ago when he said control and supervision of milk transportation should gradually pass into the producers' hands. An indication that farmers are considering such a move, on an organized scale, came at the recent annual meeting of the Ontario Federation of Agriculture. Delegates claimed in one resolution that transportation is one of the largest farm marketing costs, and charged that truckers had an undue influence over it.

THE story of the Nipissing-Sudbury Regional Co-op at Verner, is a good example of what is involved when farmers try to take over trucking. The best man to explain what happened there is Ernest Beaudry, Verner dairy farmer and long-time community leader.

"Ten years ago, we were paying truckers to haul our milk, but we found we didn't control those truckers," he recalls. "Favoritism and privilege were running wild. Truckers were telling us how many cans of milk we could ship. They were giving their personal friends the opportunity to ship extra milk when shortages developed. As individual farmers, we couldn't do anything about the situation. Even our Milk Producers Association couldn't straighten it out. And when the trucker demanded an extra 10 cents a can for hauling, we decided it was time for drastic action."

Beaudry was president of the Milk Producers Association then. He recalls, "When we met with

the trucker, and failed to persuade him to hold the line on trucking charges, we decided to try to buy him out."

Maybe the trucker didn't realize the deadly seriousness of the dairy farmers then. He scoffed at their boast that they could hold the trucking rates without an increase. But he made an offer. "For \$50,000 cash, I'll sell," he said.

To the farmers, it was an extravagant price. They would get 4 trucks and a small garage for the money.



Verner dairyman Ernest Beaudry was first president of this profitable local trucking co-op.

"The trucks and garage were probably worth about half that," Beaudry explains. "Many of our members thought the price was too high. But our only alternative was to start up in competition with him. That would have been expensive too. And it would probably have torn the district apart, for some farmers would back the co-op, others would stick by their trucker. It would build up a legacy of ill feeling that might take a generation to overcome."

The milk producers had a powerful trump card when it came to raising the money. The Nipissing-Sudbury Co-operative was a power throughout the north even then, and some of the milk producers were among its members. It represented a source of money if they decided to go ahead.

Beaudry recalls, "Even at \$50,000, the trucking enterprise looked like a good business proposition. You can't get into any business cheaply."

The group got the backing of the Sudbury Co-op, bought the route in 1951, and merged it into that co-op as one of its branches.

Members agree now it's one of the best moves they ever made.

The co-op has grown to handle the milk of 240 district farmers. It has diversified, too, for it now owns and operates 8 milk trucks, 2 cream trucks, 2 trucks which haul store and feed mill supplies, and it even has 2 trucks hauling cattle to Toronto and bringing back supplies.

Beaudry warns others that plenty of problems face a farmer co-operative going into the milk transport business.

Several such co-ops have paid off in Ontario. Now, farmers generally are looking at the idea

by DON BARON



Truck driver George Roussel, of Verner, loading milk cans on his Nipissing-Sudbury Co-op route. [Guide photos]

"Dairies are afraid of farm groups getting too much power," he says. "They called a meeting to try to talk us out of our plans. They were afraid they would be at a disadvantage when they had both the Milk Producers Association and the trucking co-op to deal with, especially if the two worked together. But in reality, the Milk Producers Association has never had anything directly to do with the Co-op. We bought the trucking route through the farm supplies division of the regional Co-op and incorporated it with the co-operative.

"In the interval, we have proved to them they had nothing to fear. The Co-op is run strictly as a service to the dairyman. It is kept completely separate from our Milk Producers Association. Our aim is to truck milk as cheaply as possible and to co-operate with the dairies in delivering milk to them. There is no friction now."

ONE of the best examples of how the Co-op gives a farmer more bargaining power, is in the way it met the bulk tank problem. The dairies broached the idea of bulk tanks and faced the Co-op with the problem of keeping lanes open in winter, and members, many of whom are small farmers, (average shipper sends 3½ cans per day) with the prospect of investing heavily in bulk tanks.

Said the Co-op: "We will continue to gather milk in cans, but if the dairies want to receive it in bulk, we'll buy a tank truck, empty the cans into the truck, and deliver it that way." The suggestion was all that was required. Dairies have dropped the subject, apparently content for the time being with can delivery.

According to Beaudry, the key to starting any milk Co-op is to start peacefully and quietly. "Don't create hard feelings in the community. Prove to the people you can do a good job, and they'll let you go ahead."

And he adds another thought—"Don't move too quickly or furiously, but don't wait till it's too late either. Buy routes when they become available—that's the right time."

How to Train a Dog

by RAYMOND SCHUESSLER

WHEN you bring a new dog to your household, it's as memorable as adding a newcomer to the family. But young pups have to learn the ways of the canine world; many of their important functions are not inborn.

In training any dog, you have to speak from the heart and let him know you're sincere.

Your commands should be short, distinct and consistent. And don't ask a dog to do senseless things; you'll want to keep his respect as well as his love.

As for lessons, each should be short. Constant brief ones—daily—are far better than sporadic long ones. It's also wise not to train your pup when he's tired, or work him to the point of boredom.

You should quit each lesson on a successful note, and top it off with praise and a tidbit. Never stop at failure. If necessary, go back to some command he's already mastered, to insure ending the lesson well.

As for what to teach, we come to the meat of his training. First of all, it's essential that he comes when you call. This should be the easiest thing he'll learn; it's probably what he wants, anyway.

Go out to the yard where he can have some freedom. He should be wearing a collar; you should have a lead with you.

Walk about for a few minutes, letting him play freely. Then, when he's some distance away, call "Here Duke" (or whatever his name is), leaning over and clapping your hands at knee level to further attract attention.



If a puppy won't come when called, run from him and he will follow. Then turn just before he reaches you and welcome him. Don't chase him or you will drive him in the opposite direction.

If he responds quickly give him a biscuit as a reward, patting him and saying, "Good boy."

Repeat this two or three times in the next 15 minutes and call it a day—if compliance has been quickly and corrected accomplished. This should do it, but if there's an inadequate response—perhaps he was distracted in his play—call while running from him.

HOUSEBREAKING, or better yet "house-training," (never break a dog's spirit in any way) should also be done easily; dogs are naturally clean. As a prelude, be sure your dog has ample opportunity to relieve himself outdoors before you bring him in. This gives him the idea that he was taken outside for that specific purpose.

Later you may find that when he needs to relieve himself, he'll move toward the door. But if an "accident" happens, get to him quickly and rush him outside, saying, "Shame, Duke, shame." He may then finish outside. If not, wait a while, then say, "Good boy," returning him indoors. He'll get the idea.

Getting back to commands—one of the most important you can teach is to lie down, and stay until he has permission to move. It makes for good control.

Begin by calling him, patting him and then, after a momentary pause, say "Down Duke," quietly and firmly. Naturally he won't understand at first; will probably look at you quizzically.

Repeat the command—this time pressing your hand on his back. If he yields easily, that should do it; if not, increase the pressure. When absolutely necessary, pull his front legs out from under him. Once he's down, you'll have to keep the pressure on his back until he gets the idea.

Gradually repeat this procedure until he gets down by command. This can be achieved by lessening the pressure as you go along.

You'll probably find your dog eagerly responsive; it's a natural trait. But he might be overly enthusiastic; you'll want to curb him from jumping up at people.

When he jumps up at you, hold out your hand, palm downward, and command, "Down Duke." When he drops, be sure to reach down and pat him to indicate that you appreciate his response.

Another rather essential command is "Whoa!"—stop and stand still. This is used when your dog is ahead of you, or about to cross a street. For many types of hunting dogs, it's the most essential command.

To teach him this, you'll need a long lead—a clothesline will do. Just before mealtime, have the dog's food ready. The idea is to start him off toward the food, which is placed beyond the length of lead. As he runs to its length, yell "Whoa!" He'll get the idea very nicely.

After he has learned to stop at your command, the next thing to teach Duke is to "heel," or walk sedately just behind you—on the left side—with his nose at a line with your knee.



Show him that "no" is very important in a dog's life. Boots is being eased gently off the sofa.

Any short lead helps in this lesson, but a rolled-up newspaper will also come in handy.

Walk along with the dog on lead. He'll naturally pull ahead. Say "Heel Duke," stopping short, and with the lead pull him back to the heel position. When you start up again, restrain him from pulling ahead.

Reach slightly in back, placing him in lead position. If he persists in moving up, tap him on the nose with the newspaper. With patience, he'll soon be heeling at your command.

YOU'LL probably also want to teach Duke to fetch. Chances are, he enjoys playing ball and readily realizes that you won't play unless he brings the ball back to you.

If you practice this game daily, holding the ball to his face each time before you throw it—saying "fetch"—he'll learn a healthful and happy new activity.

Later, use other objects, i.e. "fetch stick," "fetch slipper," and so on, to complete the lesson.

One possible dangerous habit that must be averted is a dog's love for chasing cars. You'll need help from a friend, and a seltzer bottle or a pail of water for this one.

Have your friend drive by your house, with you in the front passenger seat, out of sight. If Duke jumps out to chase the car, hit him with the water as he pulls alongside. It may seem like a nasty trick, but it's an extremely important part of his training.

Training takes patience and understanding. At times firmness will be necessary. But remember—what your dog learns is for his own good. A disciplined dog is a safe and happy one; a valuable and revered member of your household and your community. ✓



Lassie jumps through hoop—in all dog training it's essential to be patient and gentle always.

The Once-Over Harvest

Historian Pliny wrote about the Gallic stripper harvester 200 years before the birth of Christ, but he never did mention what grades they were getting at the local elevator.

WHEN primitive man forsook the nomadic life of the hunter and turned to agriculture, he had three major problems that still harass farmers today. There was tillage, sowing the seed, and harvesting the grain. The first two were not too urgent, but the harvest would brook no delay. In spite of this, from Biblical times little or no progress was made to speed up the harvest until about 1800.

From that date, in quick succession, the sickle was succeeded by the cradle and scythe, and the primitive little reapers. In 1875, binders tying sheaves with wire came out, followed within 4 or 5 years by the twine-tying binder. The basic features of the binders of 80 years ago are still retained by those of today.

Less than 100 years ago, the heat was really on to hasten the harvest. The flail had been replaced by tread power, which again was replaced by the sweep, whereby 8, 10, or even 12 horses

by **GEORGE SHEPHERD** Curator, Western Development Museum

The inventor claimed it would do the work of 75 mules for the cost of the grain they would eat.

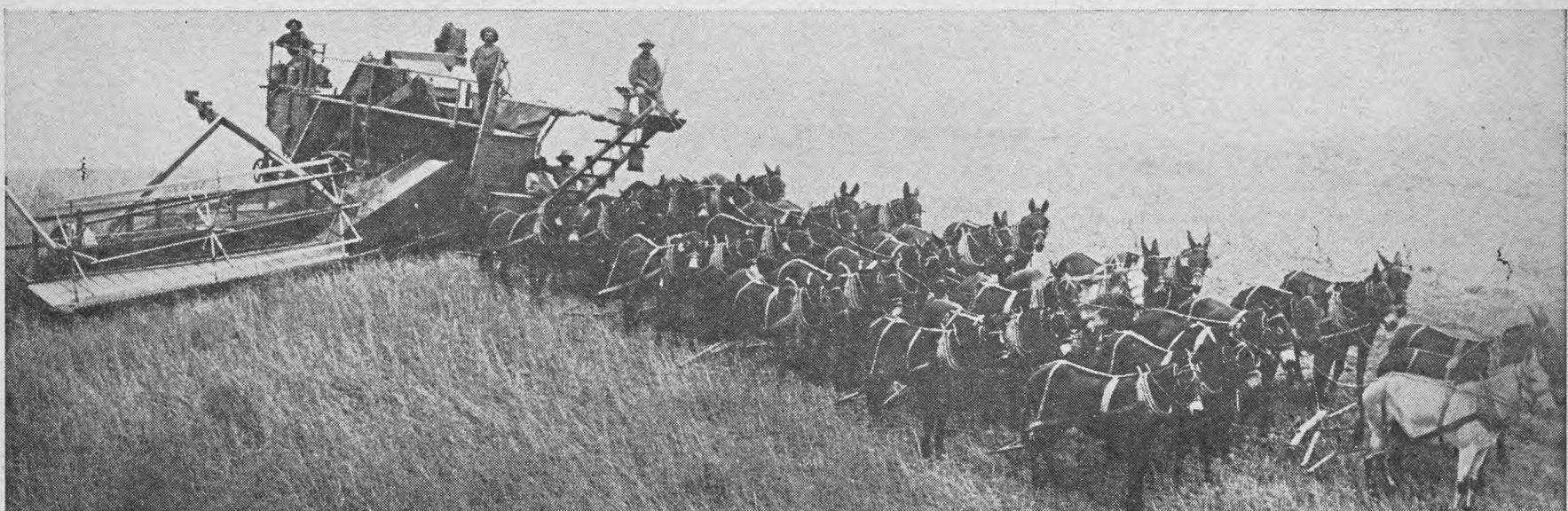
The following year Benjamin Holt also turned out a steamer. By 1890 the battle was really joined and combines, some of them of immense size, with a cut of up to 50 feet, were in use in California and Washington. At the same time the Sunshine harvester was being developed in the drier areas of Australia.

AS more and more land came under the plow in the Pacific coastal states, the combine proved unsuitable on the rolling, but fertile, hills of that territory. Grain grew well enough but in a tilted combine it moved too fast, or too slow, and bunched up on the sieves. In 1891, Holt introduced his sidehill harvester with leveling mechanism. For the first time, a combine could go anywhere a team could go and still operate satisfactorily. Profitable grain farming became a reality on thousands of hilly acres, notably in such winter wheat areas as the Palouse.

of Saskatchewan in 1910. This was a standard level-land machine with a 20-foot cut, manufactured by the Holt Company, and powered by both ground wheels. It was pulled by a 30-60 Hart Parr tractor.

IT seems a little strange that the dry plains of southern Alberta, more especially being near the combine country of the state of Washington, did not develop the combine before Saskatchewan. The earliest combine date that has turned up is 1923, at Vulcan. But J. K. MacKenzie of Alberta figured prominently in the early history of the combine in Canada and the northern U.S.

In 1912, it appears that a Mr. Foss brought a combine to Saskatchewan and there are reports of a home-made combine at Aneroid in 1914. However, the history of combining in Saskatchewan, or Western Canada for that matter, really began in 1922. That year the Massey-Harris Company placed a 12-foot motor-driven combine on the Dominion Experimental Farm at Swift Cur-



This Holt combined harvester was powered by 5 men and 33 mules. The harnessing, unharnessing and feeding of the mules must have been quite a job in itself.

drove quite large threshers, and millions of bushels of grain were threshed.

But men were still intrigued by the thought of "once over and it's all over" harvesting. A patent was issued in the United States for a combined harvester and thresher in 1828. In 1836, another patent was granted to Moore and Hascall of Michigan. Their machine was fairly successful but was abandoned on account of the heavy moisture content of the grain in that area. However, this combine was shipped to California via Cape Horn and was used there in 1854.

In Australia, a farmer named John Ridley had an encyclopedia containing Pliny's description of the Gallic stripper and set to in his workshop to make a harvester. It was not, however, until 1884 that another Australian added a separating feature.

Back in America the hunt was still on, and by 1890 the combine was in general use in the drier areas of California, Oregon and the state of Washington. The combined harvester was really bred in California under the competitive leadership of Chas. Holt and Daniel Best, and others.

Actually Best delivered his first steam-hauled combine harvester in 1889. It cost \$4,500 and was an enormous machine. The two traction wheels were 8 feet in height and 26 inches across.

By the 1900's these big old combines, far larger than those of today, looked for all the world like ships wallowing across a mighty sea of wheat. They were ground driven, taking five or six men to operate them, including the sack sewer who slid the sacks out in bunches on the stubble. In spite of the fact that it took around 30 head of horses and mules to pull it, the combine was coming into its own.

AFTER 1900, the gasoline engine moved quickly ahead and in 1904 the sale of an auxiliary engine marked another milestone in combine history. Two years later Holt built an experimental gasoline, crawler tractor, and now the combine could be pulled on any hill or ground that horses or mules could work on.

It was in 1911 that Holt built his first self-propelled combine and some 300 were sold between 1915 and 1920. This was quite a record considering their limited use and the fact that they cost around \$5,000 at the factory.

Meanwhile, developments were taking place in the Canadian West. In the winter issue of Saskatchewan History for 1955, Lewis H. Thomas, who was at that time Provincial Archivist, mentions J. F. Shand and his partner, a Mr. Edmunds, who imported a combine into the Spy Hill district

rent. This was so successful that the machine was purchased by the farm and a strict accounting of operations was published in bulletins for prospective combine purchasers. That same year, the International Harvester Company located a combine at Cabri, and 2 years later the J. I. Case Company brought in three. The combine had arrived and the day of the big steam threshing outfit was ending.

Back in Alberta, the Mahr Bros. went over to the state of Washington in 1927 and purchased a used combine which they operated on their Milk River farm for almost 20 years. This was a Holt self-propelled with a 20-foot cut, sold new at Spokane in 1918. The machine is now on display at Saskatoon. Originally it took five men to operate it when the grain was being sacked, but fewer when a wagon was alongside to catch the threshed grain.

In a brief story such as this it is only possible to scratch the surface of combining history. The progress in harvesting has been little short of amazing. It took about 37 man-hours of toil to harvest an acre of grain with the cradle and scythe and thresh it with the flail. Today, with a self-propelled, one man can harvest an acre of grain in 20 minutes. V

Power Farmer

On big farms big equipment will get the job done quicker and more efficiently

by CLIFF FAULKNER



Clarence Leshures climbing into the cab of his 4-wheel-drive tractor. Note the hydraulic unit.

ALL the notes and several of the pictures for this story were taken while riding in the comfortable cab of a 15-ton Wagner 14A tractor. The Wagner (Country Guide, Feb. 1961) is a big, rubber-tired diesel unit similar in design to highway building equipment. Its main features are power, speed, safety, maneuverability and driver comfort. This type of tractor has been well received by big acreage farmers and other firms have similar 4-wheel drive machines on the market.

In the 3 hours I spent talking with Clarence Leshures, we pulled a 56-foot-wide rod weeder combination, and a set of double discers measuring about 40 feet. Then we hooked onto almost 60 feet of seed drill and started putting in the new grain crop. All this time, the machine moved smoothly along at 6 miles an hour and covered about 100 acres.

"Isn't that a beautiful sight!" Clarence enthused, as he pointed out of the wide rear window. "A man has to see a thing like that to appreciate it. I can remember when we used to double disc 10 acres a day with a team of horses."

Clarence, who farms 5,000 acres just north of Swift Current, Sask., takes as much delight in a big equipment combination as an artist takes in a master painting. He makes these hookups work by a set of ingenious hitches designed and built in his own workshop. Of particular interest is a massive, tandem, wheel-supported hitch which holds four big seed drills in position. Clarence made this with pipes from an abandoned construction project.

"Even the equipment you buy has to have a few things changed around before it's completely satisfactory," he said.

As an example, he pointed to his tractor's hydraulic system. The cylinders were located just outside the cab's rear window.

"When I first got this machine those were here in the cab behind the seat. So what happened? Every time there was a bit of an oil leak the floor got all messed up. I just cut out the section they were attached to with my torch and reversed it so the cylinders were outside the cab."

Another item Clarence changed was the air breather for the hydraulic system's 45-gallon oil tank. He moved this from the left rear wheel guard to a position under the engine hood where it wouldn't pick up so much dust.

"Pretty soon," said Clarence, "I'm going to have to stop and grease this equipment we're towing. You'd think in these days, when they have cars that can run 30,000 miles between grease jobs, somebody would come up with a model that'd relieve us of this chore. I sure wouldn't kick about paying a bit more for a machine that'd save me the time I waste greasing. Some of the fellows who design these things should spend a little time talking to the people who use them."

That's what he likes about his new tractor. There are several features which show the designers knew something about farm problems. One of these is the inward slope of the front and rear windows which cuts sun glare. If the glass gets dusty inside it's easier to wipe it clean than if the windows sloped the other way.

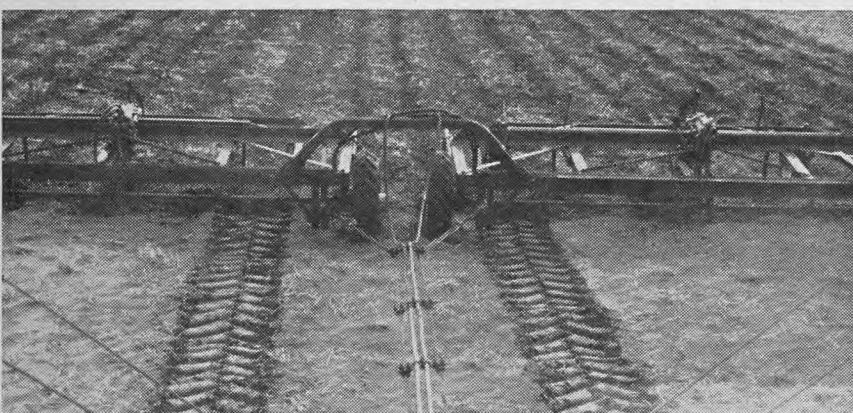
Once Clarence wrote a manufacturer's representative suggesting a few changes that would make their equipment more effective. He got a stiff letter back saying the implements were designed by skilled engineers who were paid \$20,000 and up per year to take care of such matters.

BEING a machine enthusiast, Clarence knows how to look after his equipment. When not in use, every machine is stored inside out of the weather. Each is checked and refueled in the shed where the ever-present wind can't toss dust particles into bearings or fuel lines. Every oil pump is drained after 10 hours of operation. The fuel is stored in large tanks which are located outside the buildings.

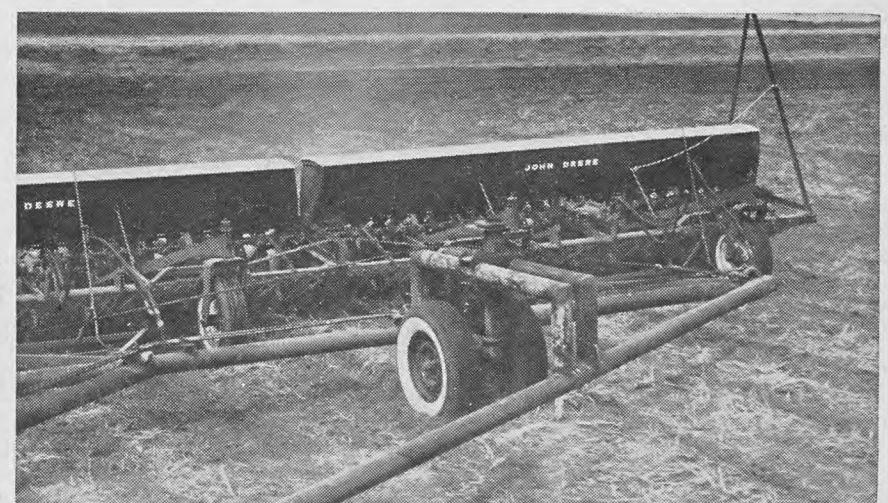
Clarence doesn't believe in pumping fuel from a barrel because, "You often make trouble for yourself that way. Any dirt or water in the barrel ends up in your tractor's fuel tank."

Knowing how he looks after his equipment, dealers always allow a good price for Leshures' trade-ins. They know they won't have any trouble reselling them. Clarence doesn't keep a machine long enough for it to need an engine overhaul. As he puts it, "I haven't any time to waste on major repair work."

The only way to keep a proper check on your machines is to have a set of permanent records. Clarence maintains a separate log book for every piece of equipment. These are kept right in the storage sheds so entries can be made after each day's use. The log books also tell Clarence a good



Left: A 56-ft. rodweeder in operation. Hitch is a series of cables; central pipes control the depth hydraulically.



Guide photos



Left: Double-discing a tough piece of stubble — Leshures keeps stubble trash on the surface to prevent soil blowing.

deal about his cropping operations. If you were to ask him what he was doing on July 20, 10 years ago, he could pick up a tractor log book and find the following entry:

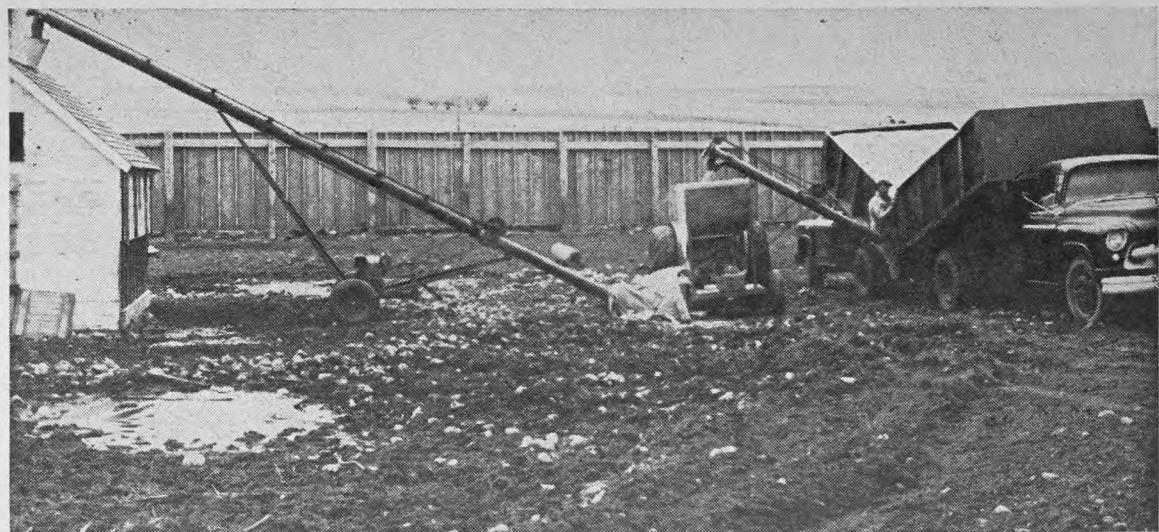
	Imp.	Rdg.	Hrs.	Fuel	Oil	Opr.	Particulars
July 20	Blade	4636	4	7	O.K.	Dad	Summerfallow North house

This tells him the tractor hauled a blade cultivator on a field of summerfallow north of the house. The tractor's driver was his father, Jesse Leshures, and the job took 4 hours. It also shows that seven gallons of fuel was put in the tank and the oil checked when the job was finished. If some part of the machine isn't working properly this is noted in the log book too, and the faulty part adjusted that same evening.

"Take care of your machinery and it'll take care of you," is Clarence's motto. "You won't have to stop for repairs when a delay could cause heavy losses."



You can never have too much manure, Leshures says. He's seen here loading it onto the spreader.



Mixing feed for the feedlot with one dump truck containing oats, and the other barley. As these run together, the grain is piped to the grinder, and from there it is piped to the storage unit.

THE farmstead is located on the quarter Leshures senior first homesteaded in 1905. Clarence himself was born and raised here. During World War II, he served as superintendent of the Swift Current power plant in the daytime and worked his farm at night. He has both his diesel and electrical engineer's papers.

"I've added quite a few acres to my operation since then," he said. "In this country you've got to be geared to handle a lot of land with a minimum of help, or you'll find yourself in trouble. I've filled in nine basements on the land I'm now farming. The owners had to sell out because they didn't have enough acreage or equipment to make a decent living. You've got to have POWER for this type of farming!"

Most of the Leshures' farm is sown to wheat, rye, barley and oats. By using a barn to augment his granary space, Clarence has storage for 90,000

bushels. About 240 acres have been set aside as pasture for his breeding herd of 100 registered Herefords. When he runs out of grass, he turns the cows into a rye field. Animals culled from this herd are fattened in the farm feedlot. Clarence used to have a flock of registered Suffolks, but he had to get out of sheep because of a shortage of qualified labor. He runs his present layout with one permanent man, plus casual help at peak seasons. His father still pitches in when needed.

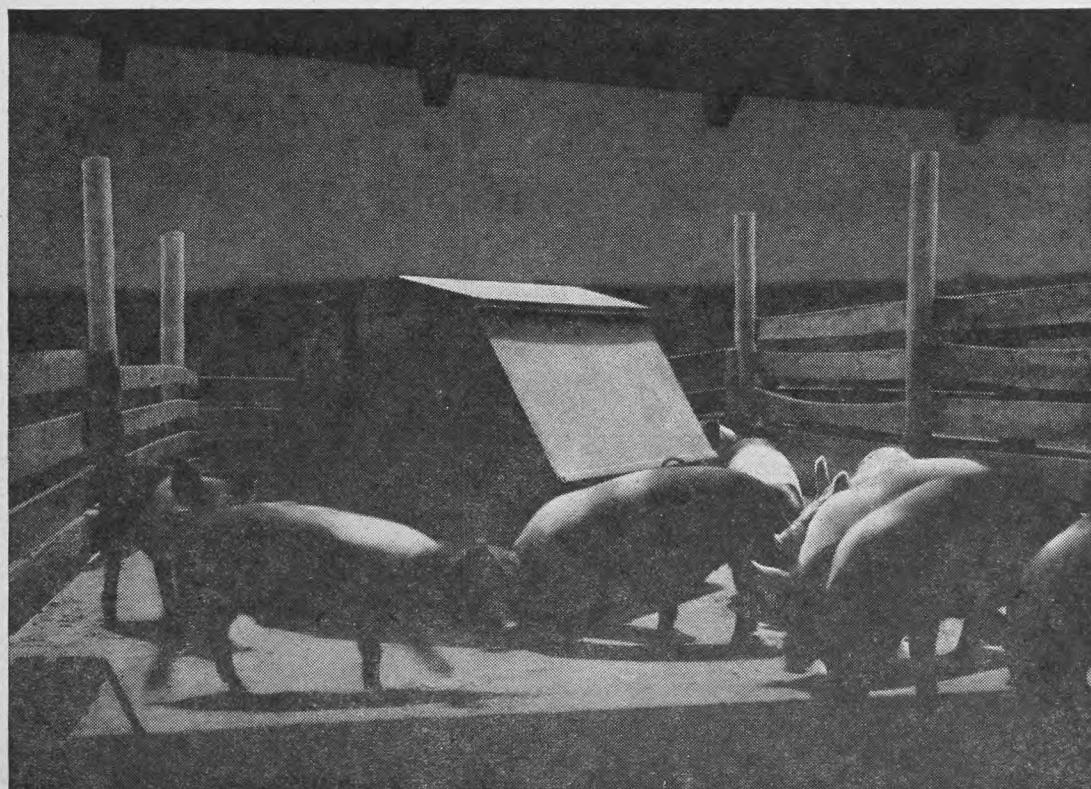
Watching me busily taking down notes as we rode along, Clarence asked, "Do you find it a bit hot in here?"

When I nodded, he flicked a button and a fan in the cab's ceiling started to run. If the pioneers who first turned the brown prairie sod could've visualized farming on this scale they would've asked to be born about 50 years later. V

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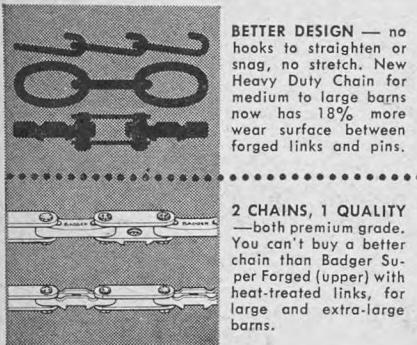
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What is your district doing about VOC. AG. ED.?

Your son's future may depend on the answer. Here is the experience of a former vocational agriculture teacher who experimented with a new type of program in a rural high school — a program that may have real possibilities in your area

by J. W. CLARKE

TOO little attention and emphasis have been given to vocational education in the Canadian school system. This is particularly true of vocational agricultural education. Such a system must be based on the fact that change in our society is inevitable. Your youngsters and those of your neighbors must prepare themselves so that change will work to their benefit. The current high rate of unemployment, and the difficulties that many of our farm people are having, are both traceable in part to the fact that the school system hasn't adjusted rapidly enough to meet the educational needs of our time.

During the past few years more and more people have begun to recognize and understand this problem better. As a result, our governments have recently become quite concerned, and have started to provide more numerous and more adequate facilities for vocational training. This is all to the good, because the needs are great and problems are acute.

It was really the recognition of this problem I have been describing which took me into a rural community to teach vocational agriculture in a high school. But before I relate some of the important things I learned, it might be helpful to put vocational agricultural education into some perspective in relation to the educational system as a whole.

THE North American public school system was developed to provide a good general education for our youth. At least one-half of the students' time in high school is devoted to compulsory subjects: English, social studies, mathematics and science. This hard core of the curriculum is given to all students whether they spend the other half of their time in practical courses or on additional academic classes.

The practical courses are not in opposition to the academic; rather they are complementary for a great many students. The opportunity of combining them is an advantage. It means that our future skilled technicians, mechanics, carpenters, welders, electricians, typists and farmers can continue their general education to at least grade 12.

It is widely known that not all of our youth, by any means, have the academic potential for a university education. In fact, taken the con-

tinent over, not more than 15 to 20 per cent have such potential, and by no means all of these have the desire to go to university. The result is that a very large part of our youth are either unable or unwilling to attain professional status. If those who are not going to university are

THERE are those who ask: Is it possible for a centrally operated high school serving a rural area to do all these things well? Of course it is, if the community is determined. It is being done in many such schools in Canada and the United States now. Evidence is available for all who wish to see it.

Some critics of our educational system lead one to believe that they want to restrict the high school to university preparatory work. Others seem to think that practical vocational courses are merely dumping grounds for the slow readers, the lazy, the incompetent and the disciplinary cases. Amazingly enough, these erroneous ideas are widely held, and it takes considerable effort to combat them.

Let us not set a false valuation on education. There is no necessary relationship between the length of formal education and the value of the education in question. The important thing is not how long one studies, but what one gets out of it. This, of course, often depends on how important the school work is to the pupil. If formal studies are to be highly regarded by the student, they must be related in some way to the pupil's own ambitions and goals.

Motivation is a factor of great significance. The course must be challenging and purposeful. Students who take a course they feel they do not need, soon quit school and seek employment, unprepared for demands of today's labor market. Coupled with the motivation factor is the need to relate the high school vocational courses to the employment opportunities in the school district.

THERE will be a substantial increase in the number of people seeking work in the labor market during the next decade. For the most part the work available will be in the professional, technical and service fields. Opportunities in such fields are expanding, while those for unskilled or semi-skilled categories are diminishing. Since only a fraction of our rural youth will be able to farm, vocational schools of all types are needed in rural areas if rural youth are not to fall even further behind urban youth in competing for the available jobs.

Rural areas, therefore, must encourage more of their young



THE AUTHOR

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people to develop their talents, and where their desires indicate, they must be allowed to develop a marketable skill in high school. In such areas, up to 50 per cent of the high school boys find their life's work in agricultural pursuits of one kind or another. Under such circumstances, it is the responsibility of the public school system to offer rural youth training opportunities in the fields of their choice, and for a large number of them this means agricultural training. In addition, it should offer courses for those who have graduated or discontinued high school, as well as for adults in the area.

EARLY in the 1950's, the school unit board and educational advisors at Kindersley, Sask., accepted this basic responsibility. An attempt was made to develop a pilot program in the school unit which would eventually offer such agricultural training as was thought necessary for both high school students and adults in the area. Emphasis centered on the adult group first and gradually shifted to the high school group. In the adult program, farm management played a major role, and, in the high school program, actual management of a farm enterprise, along with agricultural class work, was the core of the vocational training effort.

The adult program blossomed quickly, then levelled out as the interests of the adults were gradually satisfied. The high school program expanded gradually to a very satisfying level of pupil participation by 1960.

WHAT are some of the reasons why this type of vocational agricultural program appeals strongly to farm people?

Well, in the first instance, they like the agricultural teacher to live in the community where their own farm problems are being dealt with. The teacher is concerned with both adult and high school students. By earning the respect of both, he can do much to ensure the success of the program. What he learns from the adults is of tremendous help to him in teaching the high school students.

What advantages does such a program have for the student? They are numerous and are presented here in point form.

- The student does not have to leave home. He can begin agricultural training at the age of 14 or 15 upon entering high school, and can continue such training throughout high school and into the period of productive activity.

- The student takes a basic core of academic subjects throughout his whole high school voc-ag. training program.

- The student feels that at least part of his high school studies are directly related to his own goals. This supplies a motivating force to stay with his schooling.

- The student receives a basic grounding in farm management, livestock feeding and breeding, soils, crops, etc., which give him a broad background for any future training that he might desire.

- The student learns something of the demands of present-day farm-

ing while he is still attending school. Thus, he is able to make a more informed decision with respect to his future than a student of the same age without vocational agricultural training.

- Finally, the student receives practical training in management from his father and his teacher through his farm enterprise. This type of experience is seldom provided in other kinds of voc-ag. programs.

WHAT are the requirements for the success of this type of vocational agricultural training in the high school? We have already mentioned the necessity for the teacher to gain the confidence of both parents and students. In addition, these points should be borne in mind.

1. There must be a strong desire in the community for this type of educational opportunity.

Some farmers feel that they can teach their sons all they need to know about farming. Often, however, they fail to see that the problems their sons will face are entirely different from those they face themselves. Again, some farmers believe that they can send their sons to a school of agriculture if they decide to farm. The sad fact is that school of agriculture training has been available for decades and less than 5 per cent of our farm youth have taken advantage of it.

2. The Department of Education, from the minister through to the superintendent, must be convinced that a vocational agricultural program is necessary and useful for the area concerned.

3. All the agricultural teacher's workday time and energy must be channeled toward developing a first-class vocational agricultural program for the high school students and adults within the community.

4. Other teachers must accept and use the program as an important and necessary part of the total school picture. Academic teachers must recognize instruction in vocational agriculture is more personalized and dynamic than that required in many other types of courses.

5. If an agricultural teacher has a full complement of high school agricultural students, all with on-the-farm enterprises, and, in addition, he attempts to carry out an adult program, he must be free to arrange his in-school teaching schedule with the principal concerned and then be free to use his remaining time as his program demands.

6. It must be realized that it takes years to build a successful vocational agricultural program which will produce examples that can be used to inspire beginners.

7. A general supervisor of the provincial voc-ag. program is necessary. The voc-ag. teacher needs a sympathetic, understanding, and critical appraiser to whom he can turn for encouragement and direction. He should be one who can lead all voc-ag. teachers toward the common goal of aiding prospective and active farmers to prepare themselves to meet the many problems of agriculture, which will undoubtedly develop.

CANADA P⁺ PACKERS

Annual Report

The 34th year of Canada Packers Limited closed March 29th, 1961. The following is a condensed summary of the year's operations compared to last year:

	Fiscal 1961	Fiscal 1960	
Dollar Sales	\$544,987,000	\$575,892,000	decrease 5.4 %
Tonnage*	2,754,000,000 lb.	2,762,000,000 lb.	decrease 0.3 %
Net Profit	\$ 4,672,000	\$ 5,357,000	decrease 12.8 %
Net profit expressed as a percentage of sales was		0.87%	

Last year (Fiscal 1960) contained 53 weeks. On a 52-week basis the comparison between Fiscal 1961 and Fiscal 1960 was:

Dollar Sales	Decrease	4.1%
Tonnage*	Increase	1.1%

*The tonnage figure corresponds to the tonnage figures in previous years' reports and represents pounds of product sold by the companies primarily engaged in the packinghouse business.

The lower profit for the year was due to reduced profits in the Packinghouse Business (i.e., products derived from livestock).

The main factors which caused the reduction in Packinghouse profit were:

1. A 24.4% decrease in hog marketings. This caused extraordinary efforts on the part of Packers to secure supplies of hogs, and somewhat higher unit costs due to reduced throughput.
2. In the previous year the Dominion Government was obliged to purchase a very large quantity of canned pork luncheon meat to support the hog market at the guaranteed floor price. In April, 1960, these stocks of canned pork were released for sale in Canada at a price well below replacement cost. This abundant supply at a low price resulted in consumption of canned pork luncheon meat of over sixty million pounds during the year ended March, 1961. This was about three times the normal yearly volume, and undoubtedly reduced the sales of other meat products during the year.

As well as this, the luncheon meat canning plants of the whole Packing Industry, which represent a large investment, were closed and thereby produced no earning from April, 1960, until March, 1961.

3. For some years a steadily increasing proportion of the beef sold in the large consuming markets of Quebec and Ontario has been killed in Western Canada and shipped East as chilled carcasses. This trend accelerated during the year because of a change in freight rates which increased the saving in shipping carcass beef rather than live cattle.

This has resulted in a period of readjustment of the channels of supply, which has made beef operations difficult.

Because of these factors the profit for the year in products derived from livestock was unusually low.

The other divisions of the business made satisfactory profits.

The products of these other divisions can be briefly classified as follows:

1. Shortening and Margarine
2. Produce and Poultry
3. Fresh Fruits and Vegetables
4. Canned and Frozen Fruits and Vegetables

5. Gelatine
6. Peanut Butter
7. Soap and Detergents
8. Soyabean Oil and Soyabean Meal
9. Animal Feeds and Chemical Fertilizers
10. Pharmaceutical products
11. Leather products
12. Feathers, Down, and Foam Rubber
13. Jute and Cotton Bags

This wide variety of products serves to insulate the results of our company from the inevitable ups and downs of the packinghouse business.

Many of the divisions manufacturing these products have become major businesses in their own right. They are autonomous units with complete management of their own who control their own buying, manufacturing and selling policies. We believe that this is a healthy pattern of development which provides the greatest opportunity for the talents of many able people.

In line with this policy, we announced in 1956 the formation of separate divisions to handle Canned and Frozen Fruits and Vegetables, and Soap, Detergents and related products. Since that time, substantial progress in sales and profits has been made in both areas.

In this fiscal year there was a decrease of 24.4% in Canadian hog marketings. By months, the decreases in average weekly hog marketings, compared to the previous year, were as follows:

April, 1960	Decrease	17.8%
May	"	17.6%
June	"	22.7%
July	"	24.5%
August	"	24.4%
September	"	35.3%
October	"	23.0%
November	"	24.1%
December	"	32.5%
January, 1961	"	30.2%
February	"	19.1%
March	"	17.1%
April	"	11.1%

These sharply reduced marketings undoubtedly resulted (at least in part) from the lowering of the Federal Government support price for hogs and the introduction of a deficiency payment plan in place of a fixed support price. These measures were clearly necessary, since the previous support programme had encouraged production of a great many more hogs than Canada could consume at the support price.

The pendulum is now swinging the other way and it is likely that hog marketings will be about equal to last year in July and will be higher than last year thereafter, with substantial increases in the Fall and Winter.

This may mean a good deal lower hog prices during the year ahead. With the deficiency payment plan, the Canadian Government will not support the hog price with purchase of pork products, and if the quantity produced is large enough, the price must fall to the point

**CANADA PACKERS
ANNUAL REPORT**

(Continued from preceding page)

where pork products can be exported to Britain or Europe. United States forecasts indicate low pork prices this fall and the U.S. market no longer provides a floor price for Canadian pork products because the import of subsidized products into the U.S. is prohibited and Canadian pork can only move there at the equivalent of the lowest price on which no deficiency payments are made (i.e., \$23.65 per hundred pounds dressed weight, basis "A" grade hogs at Toronto).

During the fiscal year the marketings of slaughter cattle in Canada increased by 7.6%. Forecasts indicate a further increase of between 5 and 10% in the year ahead.

A large proportion of Canadian beef cattle is produced in the Prairie Provinces. Given suitable refrigerated transport, it is more economical to slaughter cattle near the source of production and ship the dressed beef to the consuming markets because a much smaller weight is shipped and because the yield of beef is greater when the cattle are slaughtered locally.

These economies are becoming greater as freight rates increase.

To conform with this changing pattern of beef supply, Canada Packers opened a new beef plant in Lethbridge, Alberta, in December 1960. This plant ships beef to Quebec, Ontario and British Columbia. It is our most modern and efficient beef plant, and with our plants at Calgary, Edmonton, Moose Jaw and Winnipeg enables us to provide a complete service to our customers throughout Canada.

During the year only a modest number of cattle was exported to the U.S. Canadian consumption was able to absorb the 7.6% increase in slaughterings at a price higher than could be obtained by shipment to the U.S.

Canadian beef consumption was undoubtedly stimulated by the decrease in supplies of both hogs and poultry.

In the year ahead we look for increased supplies of beef and hogs and poultry. A similar forecast is made for the U.S.

These forecasts suggest ample meat supplies for the coming year, with consequently lower meat prices.

Directors report with pleasure that relations with employees throughout the year have been harmonious and co-operative. They are pleased to inform Shareholders that this has found expression in that most important of all objectives—the steady improvement of the company's products.

W. F. McLEAN,
President.

Toronto, June 1st, 1961.

Copies of this Report may be secured on request to Canada Packers Limited, Toronto 9.

Part-Time Farming Is Fine

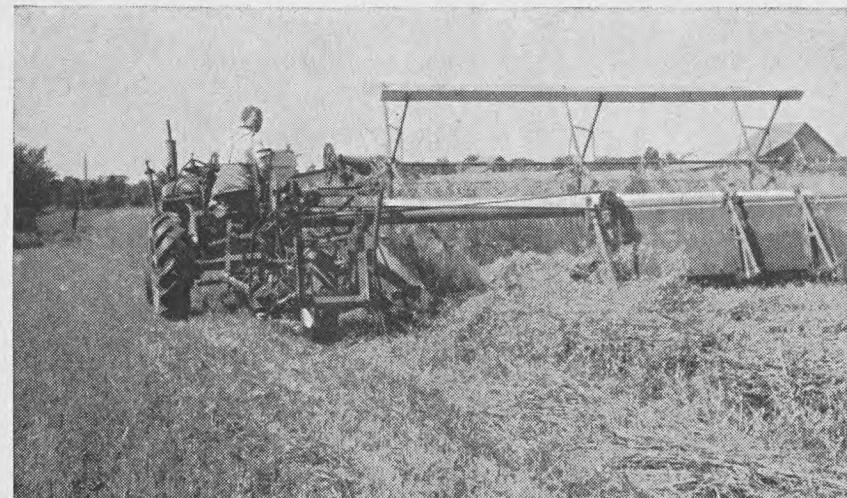
A steady job in the mines, and a life on the farm give this farmer the best of two worlds

by DON BARON

SEVENTEEN years ago, when Joe Labre found that his farm income couldn't keep pace with his rising costs, he did what thousands of farmers across the country have done since—he took an off-farm job. For Joe, this meant going to the nickel mines of Sudbury, a few miles away. But as he drove off to work that first day, he assured his wife: "This is just for a short time. Once we get more machinery, and get the herd built

Seventeen years have gone by since Labre first drove off to work. Now he is the first to admit that his dream of full-time farming has vanished with the continuing trend to higher costs and specialization on the farm. "No one could make a living today on my 72-acre farm." But, in saying this, there's not a trace of regret in his voice.

The reason is that he found something else that is just about as good as full-time farming. It's a life on



Pay cheque from mine helps Labre to buy good machinery to do work quickly.

up and farm prices begin to rise, we'll be farming full-time again."

He meant it too—for Labre is a man who loves farming. In fact, he seems to have been cut out for farm life. He's a stocky man with black curly hair and a continual smile. He was one of a family of 13 children raised on a farm near Capreol, north of his present farm at Chelmsford. While his family was never wealthy, that smile he still carries indicates that the big Labre family had discovered the important things of life.

Joe was determined to raise his own family on a farm too. "No matter what happens," he explained, there is always lots on the table on the farm. And the children can be busy and free from the boredom and temptations that confront city children.

"Watch children at picnics and other get-togethers," he added, "and you can tell which ones are from the farm. Farm children are always busy. They have no time to get into trouble. That's what counts."



Guide photos
Joe Labre has 2-year-old Robert as constant companion around the farm.

children are being raised there—and I earn extra money there too.

"In fact," Labre says, "we have all the comforts of life you could want: a comfortable home, oil heating, a television set, and a good car."

WHILE farming is a spare-time business with him, he cautions that it can't be a neglected one. He has a dozen purebred Hereford cows, a milk cow for the needs of the family, and 300 hens. He grows pasture, hay, and oats, and he has a garden as well.

Chores take a couple of hours each day, and he works on the farm week ends and holidays as well. His outside pay cheque gives him one big advantage: it enables him to buy good equipment. He has a tractor, a baler (he took off 1,400 bales last summer), a swather, and he shares the use of a combine with a neighbor.

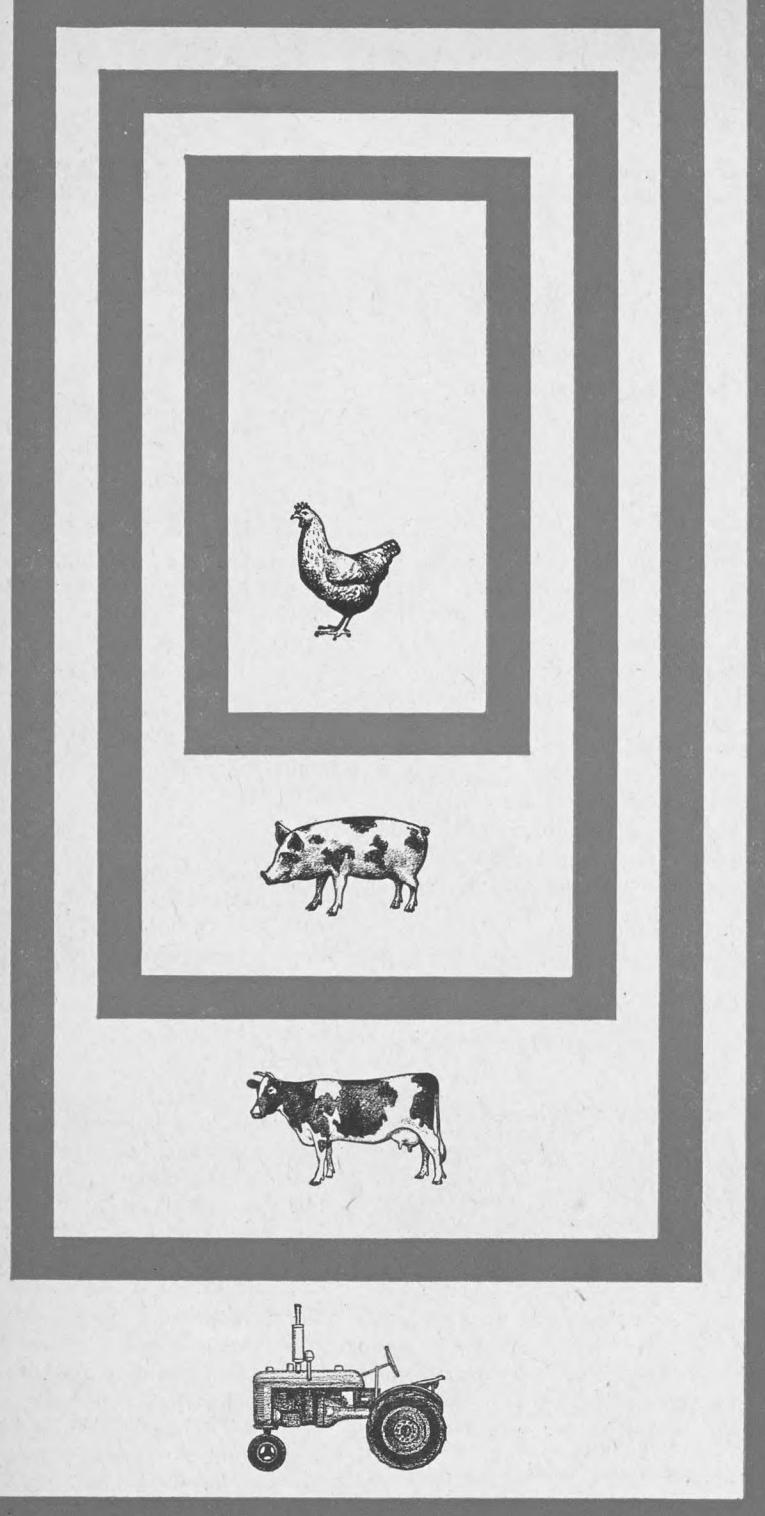
His farm work pays him for his efforts. Joe has cattle to sell each year. He delivers potatoes and fresh eggs regularly to stores in town, as he goes to work. In fact, value of these sales is about \$1,000 a year.

Labre has four children. The oldest is a qualified school teacher. This is proof, he insists, that the farm upbringing stood her in good stead.

No wonder Joe Labre will boast to anyone that you can't beat a life on the farm, even if you want to get a steady job in town as well. □



Some of the farmer-miner's herd of purebred Hereford cattle ford a stream.



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Through Field and Wood

No. 35

by CLARENCE TILLENIUS



RASPBERRIES, chokecherries, blueberries, strawberries—berry time is feast time for black bears. On burned-over hillsides in northern Ontario where raspberries grow in profusion, we have seen trails beaten through the bushes like a jigsaw puzzle where the bears have gorged on the fruit.

Nineteen times out of twenty, the bear you meet in a berry patch will take off immediately. Sometimes he will stand up first to look you over. Very, very rarely, will a black bear in the woods come toward you. If it happens, it is usually in a park where vacationers have foolishly fed them from cars and so taught them to look to people for handouts. This is a poor practise which in parks

may end in the bears becoming aggressive, and eventually they may have to be shot.

So if in the woods you find the way suddenly blocked by a bear standing in your path, do not panic and run. If you stand still, he may grumble and try to bluff you, but he will eventually retreat. But suppose you meet that 100th bear who is surly and will not give ground. If you feel you have not time to wait for him to make the first move, you can either back very slowly off or walk equally slowly around him. In either case he will usually appreciate your good manners sufficiently not to molest you. And, after all, he quite rightly regards the woods as his woods, too. □

Until these Manitoba farmers saw the evidence, borderline spark plugs were quietly stealing their power and gas

When it comes to tracking down borderline spark plugs, the eye is better than the ear. That's what these farmers from Stonewall, Manitoba, learned last year when they drove their tractors straight off the farm for an engine efficiency test.

Before the test most farmers didn't think their spark plugs needed replacing simply because their tractors sounded O.K. They thought differently afterwards! The dynamometer dial showed that a set of new Champion spark plugs upped horsepower an average of 5.6% and at the same time a flowmeter test cut gas consumption an average of 6.9%.

The reason *borderline* spark plugs fool you is because they start to waste power and gas long before you can hear any signs of misfiring.

Don't trust your ear to tell you when it's time to change plugs. Install a new set of full-firing Champion spark plugs every 250 hours and get every nickel's worth of power and gas you paid for.



At the John Deere dealership of Billis Farm Equipment in Stonewall, Manitoba, farmers watch as a tractor's horsepower output is tested on an M&W pto dynamometer, first with the old plugs in and then after new Champion spark plugs have been installed. Even though no misfiring could be detected before the test, results showed what a big difference new Champions can

make to a tractor's horsepower, (as much as 14% on one tractor). Said Jerome Vandekerckhove (far right) "I'm sure glad of the extra power. We need all we can get especially with the new and bigger implements coming out." Added Jake Kenning, "It seems we should all change plugs more often if we want to get the most power and performance out of our tractors."



Here a flowmeter is used to check gas consumption, first with the old plugs in and then again after changing to new Champion spark plugs. These farmers discovered that new Champions saved as much as 7.1% gas.

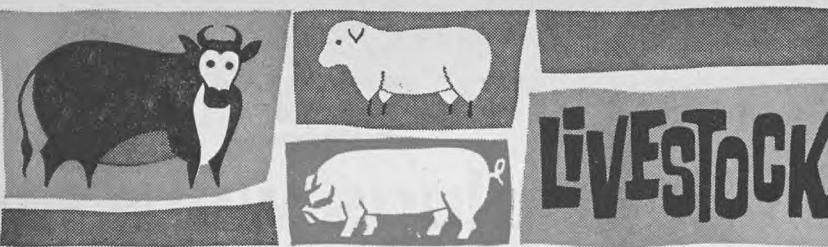
As Bill Marcus (in tractor seat) said: "A new set of Champion spark plugs lets you pull more and do more work while you save money at the same time. That proves it pays to change plugs regularly."



Get full power with new



SPARK PLUGS



Hog Housing Types Compared

SOME interesting results have come from the University of Alberta on the effect of winter climate and type of shelter on growing-finishing swine. Reporting on an experiment begun in 1959, this summary was given at the University's annual Feeders' Day:

1. Increase in colony house temperature over outside air during last winter was 4° to 5° greater for houses insulated with rock wool bats, or with straw packed to the eaves, than for an uninsulated house of the same type.

2. Air temperature in an open-front shed averaged 9° lower than in the uninsulated colony house.

3. Bedding temperatures after colony houses or open front shed were occupied for 3 weeks were at 65° or above for a majority of hours in the day. These bedding temperatures should be comfortable for pigs lying in bedding.

4. Rate of gain and feed efficiency of market pigs, raised in swine barns heated to an average of 66°-67°, were better than for pigs in unheated colony houses. However, during the past relatively mild winter, the differences were not great enough to show a decided decrease in efficiency of pigs raised outside.

5. Carcass quality was not greatly different between lots in the test.

It is felt that it's possible to plan a year-round feeding program using low, flat-topped colony houses of the closed-front type, if large groups are used and the pigs are crowded somewhat to maintain better temperatures within the house. Also, feeding market pigs in an open-front shed was very successful last winter, but it was not too successful the previous year, and would probably not allow top rate of gain and feed efficiency in a cold winter. V

Satisfactory Return From Holstein Steers

HOLSTEIN steers raised as fed yearlings from spring calves gave satisfactory returns, even though carcasses were not smooth and well finished, according to tests at the Animal Research Institute, Ottawa. Although 18 Holsteins gave lower returns over feed costs than did 17 Shorthorns and 14 Shorthorn-Holstein crosses, the results were still satisfactory.

Holsteins and crossbreds gained an average of 1.72 lb. daily from birth to market; Shorthorns gained 1.65 lb. During winter fattening, Holsteins had 9 lb. of grain daily, Shorthorns 8.5, and crossbreds 8.1. The Holsteins tended to grow and develop instead of putting on fat.

Holstein carcasses graded 34 per cent Standard, 66 per cent Com-

mercial; Shorthorns 6 per cent Red, 23 per cent Blue, 18 per cent Standard, and 53 per cent Commercial. Crossbred grades were intermediate.

Average cold carcass weights were: Holsteins 438, crossbreds 404,

Shorthorns 406 lb. Dressing percentages were 53.0., 54.6, and 54.9 respectively. V

Ratio of 20 to 1 Favors A.I. for Pigs

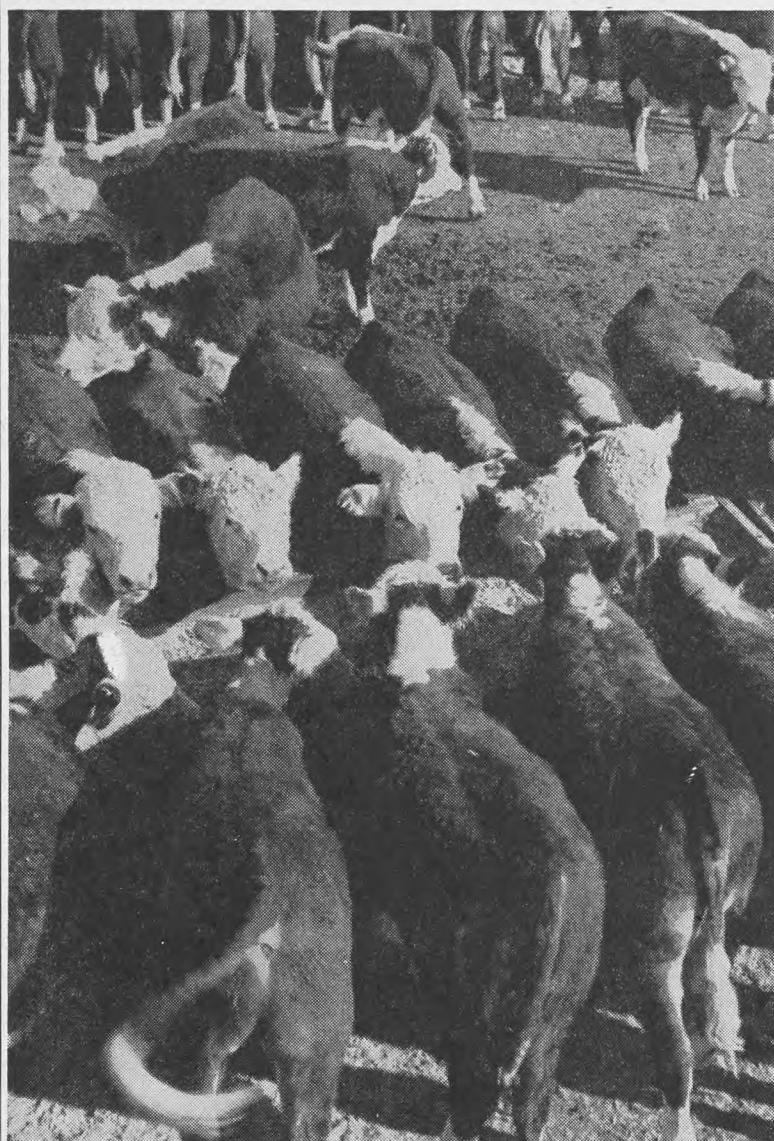
A BOAR can service 20 times more sows per year through an artificial insemination program than would be possible through natural service, according to the University of Wisconsin. And what's more, a Wisconsin field test showed that offspring of artificial insemination had better carcass length, loin eye size, ham weight, and carcass grade,

because the sires of these pigs were better boars than the sires of the natural service pigs. V

The test included 331 offspring from both AI and natural service, which were assembled at a feeder pig co-operative so that performance could be checked under uniform feeding and management conditions. Although they rated better in other respects, the AI pigs had the same amount of backfat as those produced by natural service. The improvement in carcass and performance was due to the difference in boars rather than to artificial insemination. V

HOW TO STEP-UP PROFITS FROM YOUR STOCKERS AND FEEDERS

This coordinated step-by-step program will help you market more cattle, with better bloom and quality at lower cost, to bring you higher returns



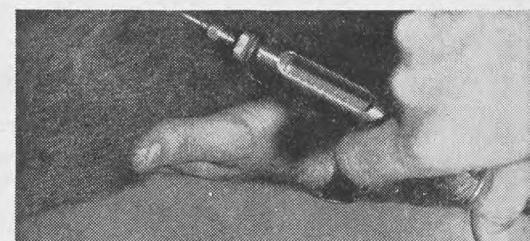
1. Good start important. Put newly arrived calves on a good stress feed that provides 350 mg. of AUREOMYCIN per head per day, for up to 30 days, to prevent shipping fever, bacterial diarrhea, foot rot and secondary infections. Vaccinate with LEBAC® to prevent leptospirosis.



2. Treat these diseases fast. If you detect shipping fever, bacterial diarrhea or foot rot among the new arrivals, treat immediately. Use SULMET Drinking Water Solution in your stock tank to mass-treat an entire bunch; for individual animals use SULMET Intravenous or SULMET OBLETS®.



4. They need more than good pasture. Feed a pasture supplement that supplies 70 mg. of AUREOMYCIN per head per day to maintain weight gains and help prevent foot rot and bacterial respiratory infections. Treat pinkeye with AUREOMYCIN Powder or SULMET® Emulsion. Use malathion to control flies.



6. Set up vaccinating program. Schedule your vaccinations for infectious rhinotracheitis; for leptospirosis with LEBAC®; for black leg, malignant edema and shipping fever with TRIBAC®.

LIVESTOCK

**Grain
Replacing Hay**

DURING a hay famine, beef cattle can be fattened economically on an all-grain ration, plus a mineral-vitamin A mix. But dairy cattle rations must include at least 9 to 10 lb. of hay per day. On this basis, says the Manitoba Department of Agriculture, owners of dairy herds must have at least a ton of hay per cow for winter feed-

ing, on the basis of 9 lb. per day for 220 days.

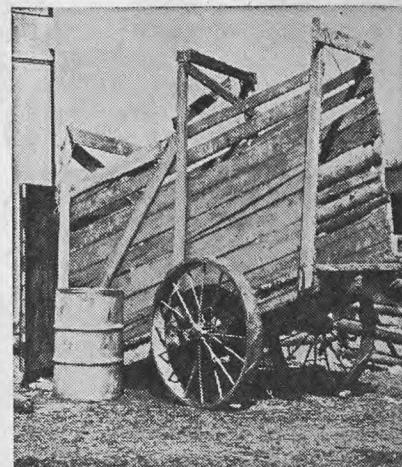
Where dairy herds are on short pasture, the cows should have a higher grain ration. In winter, maximum production can be held economically by substituting grain for hay, the ratio depending on the prices of hay and grain, according to Metro Daciw. If hay is more than \$30 per ton, only the minimum of forage should be fed, with grain replacement. Heavy producers and milking heifers can be fed up to 1

lb. of grain for every 1½ lb. of milk. Low producers could be given 1 lb. of grain for 2 lb. of milk.

If hay is \$25 to \$30 per ton, each cow could be allowed 3,500 lb. over the feeding period, or 16 lb. per cow per day. At \$20 to \$25 per ton of hay, each cow could have as much as 25 lb. per day, with heavy milkers and heifers getting 1 lb. grain per 2½ lb. of milk produced, light producers 1 lb. of grain per 3 lb. of milk. This is on the basis of 2 cents per lb. of grain.

If cattle are fed more than the normal amount of grain, they should become accustomed to the new diet

gradually over 3 or 4 weeks. Watch cattle carefully, as some cannot safely consume as much grain as others. The grain should be coarsely ground, or rolled if possible. Minerals and vitamins may have to be added when relatively small amounts of hay are fed. V

Loading Chute

Guide photo

Why not try taking the loading chute to the cattle. Chute has a pair of wheels taken from an old implement.

When that good bunch of calves you carefully selected arrives, you want to bring them along at lowest cost and secure highest market returns.

That's why this Coordinated Feed-Health Program was developed—to give you closest possible control over the visible and invisible diseases that retard growth, run up feed costs and result in lower returns.

This easy-to-follow program dovetails the use of good formula feed containing AUREOMYCIN® and the vaccines and medications that safeguard your cattle investment.

Read each step in the Coordinated Feed-Health Program and you will see that it gives you a common-

sense timetable and procedure to follow throughout every stage of your stock-feeder operation, from arrival to market. It is practical, easy to use and, combined with good management, designed to help you make more money.

Your veterinarian and feed man will be glad to discuss it with you. Your feed man also has a special folder which describes this program for you in much greater detail. It is yours free for the asking. If he has temporarily exhausted his supply, write direct to us for your free "Coordinated Feed-Health Stocker-Feeder Program." Cyanamid of Canada Limited, Agricultural

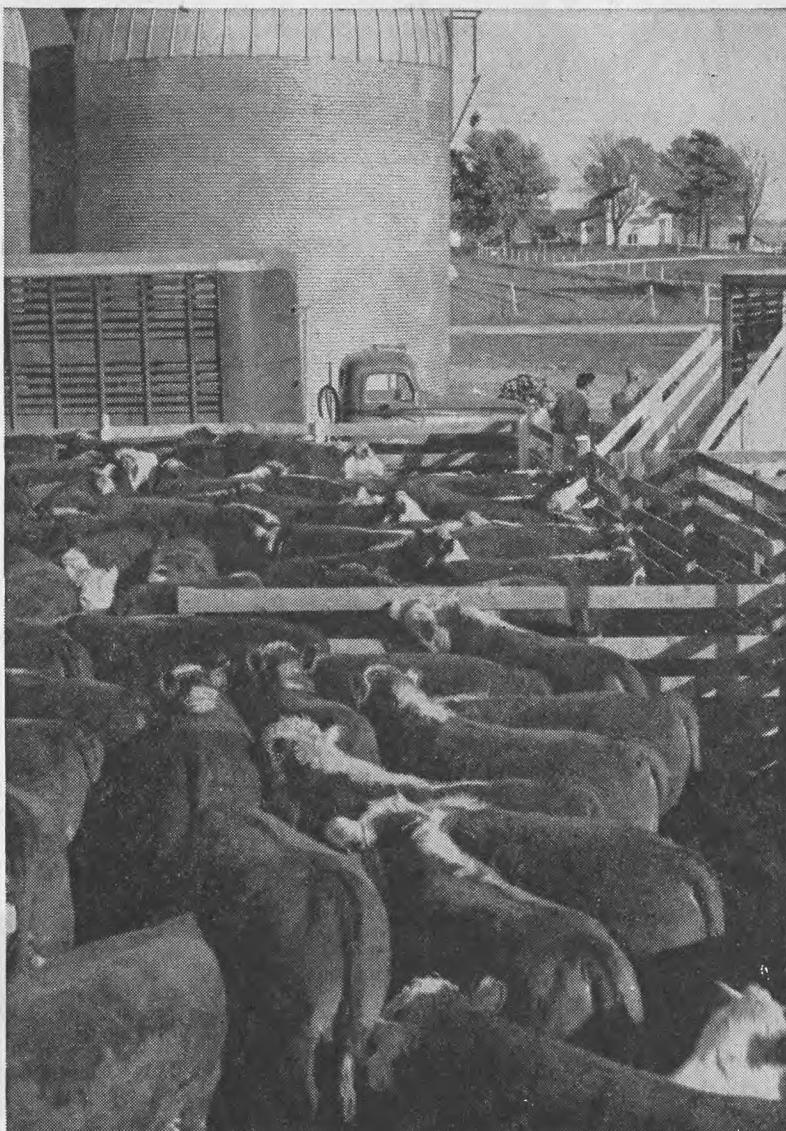
Products Department, Montreal 2, Que. ®AUREOMYCIN is Cyanamid of Canada's trademark for chlorotetracycline.

The label instructions on Cyanamid products, and on products containing Cyanamid ingredients, are the result of years of research both in the laboratory and in the field. Always read the labels and carefully follow directions for use.

AF-3

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**COORDINATED
FEED-HEALTH
PROGRAM**

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Maintaining economical growth and weight gains in your wintering stock depends on keeping them in good health and vigor. Use a wintering supplement that provides 70 mg. of AUREOMYCIN per head per day. If necessary, use a stress feed containing AUREOMYCIN.

5. Give cow herd good feed supplement.

Help prevent disease in your stock cows and insure bigger, thriftier calves by using a supplement providing 70 mg. of AUREOMYCIN per head per day.

7. For profitable weight gains in the feed-lot.

Use a fattening supplement that supplies 70 mg. of AUREOMYCIN per head per day continuously. This will help prevent the diseases previously mentioned plus liver abscesses.

8. Here's your feed-health program payoff. This coordinated program will help you ship more cattle, with better bloom and quality at lower cost, to bring you higher returns. Follow this practical program, in cooperation with your veterinarian and feed man. *It will pay you well.*

Value of Early Lambing

EARLY lambing can add \$1 profit per ewe above the margins usually realized from late lambing, according to the North Dakota Agricultural College. Research at the college showed rather conclusively that ewes lambing in January and February dropped about 20 per cent more lambs than the late-lambing ewes. Mortality rates ran higher in lambs born early, but early lambing provides a good manager with more marketable lambs.

It was found that feed and other costs run about \$2.50 higher for early lambing, but this was more than offset by selling prices of about \$3 more per hundredweight (at U.S. prices). Early lambing ewes also shear about 10 per cent more wool every year than late lambing ones. V

Aiming at Three-Lamb Ewe

THREE lambs a year from every lowland ewe. That's the forecast of an animal scientist at Nottingham University, England. He says that hormones are being used in experiments to increase the ewes' production. Using maiden sheep, mostly Suffolk crosses, he obtained 3 crops in 14 months. Best results were achieved by injecting the young sheep to lamb in August or September, then breeding them for the normal spring lambing, and injecting again for lambing in the fall. This had no ill effect on the future breeding potential or life of the ewe. V

Before Weaning

CASTRATE pigs while they're still on the sow. Garnet Norrish of the Ontario Agricultural College says that pigs are easier to hold at this age, and they show less set-back than pigs castrated after weaning. V

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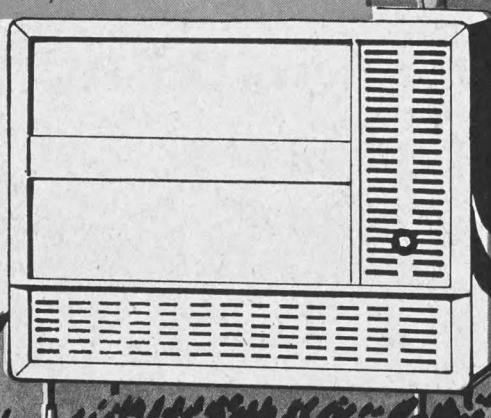
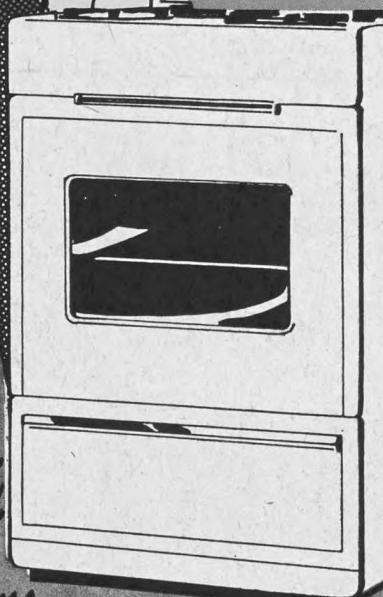
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WORKSHOP

Top for Truck Box

I find this top for my truck box is satisfactory when I'm hauling grain. I welded straps to angle iron and bolted it to the top of the box, leaving ½" space for a sheet of plywood to be slipped in. My box takes two 4' x 7'

PLYWOOD TOP SLIDES IN ANGLE IRONS ON BOX



sheets of plywood. When I load grain, I push one sheet forward over the cab and pull the other back. This cover stops wind loss, protects the load overnight, etc.—V.H., Sask.

Tack Puller

A handy tack puller can be made from an old double-edge razor by

filling notches in one edge. You can remove the lower piece of the razor that normally seats the blade and use just the curved top. To pull tacks, force the notched edge under the



head of the tack and rock the handle backwards.—P.D.E., Alta.

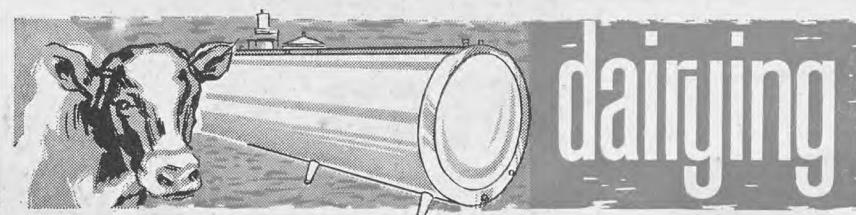
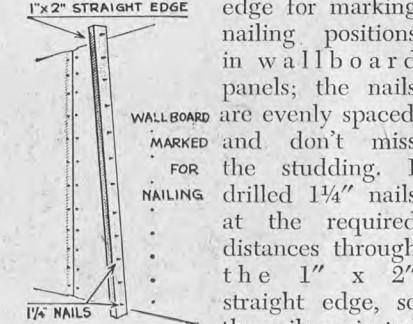
Smaller Hole

When a threaded hole in thin metal becomes too large to hold a screw firmly, use a prick punch around the hole, about ¼" away from it. This crowds the metal toward the hole and makes it smaller. If metal is thin, hold a hammerhead against the opposite side to keep it from bending.—H.J., Pa.

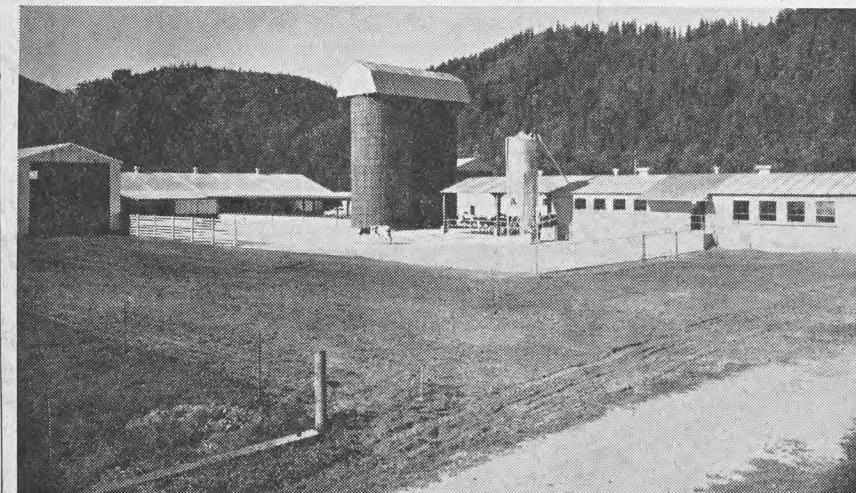
Nail Position Marker

A 1" x 2" makes a good straight edge for marking nailing positions in wall board panels;

the nails are evenly spaced and don't miss the studding. I drilled 1¼" nails at the required distances through the 1" x 2" straight edge, so the nails projected on the other side. I lay this on the wallboard, tap it with my hand, and the nailing positions are all marked.—E.D., P.E.I.



Two Men, Up to 120 Milkers



Drive-in hay store, loafing shed and feeding area to the left; twin silos and bulk grain tank, center; milking parlor and milk storage to the right.

LABOR economy is the keynote of the new dairy herd unit at the Agassiz Experimental Farm, B.C., reports superintendent Dr. M. F. Clarke. The loafing barn and yards have been laid out with an eye to easy cleaning by tractor

equipment. For bedding, wood shavings have been found to be cleaner and more economical than straw. The shavings are stirred up twice a week with a rototiller. When the barn is cleaned out the manure-soaked shavings are spread on the

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NOTICE OF DIVIDEND No. 51
UNITED GRAIN GROWERS LIMITED

CLASS "A" SHARES

Notice is hereby given that the Board of Directors has declared a dividend at the rate of 5% on the paid-up par value of Class "A" (Preferred) Shares (par value \$20.00 each).

This dividend will be paid on or about September 1st, 1961, to shareholders of such shares of record at the close of business on Monday, July 31st, 1961.

By order of the Board.

D. G. MILLER
Secretary

July 4, 1961,
Winnipeg, Manitoba.

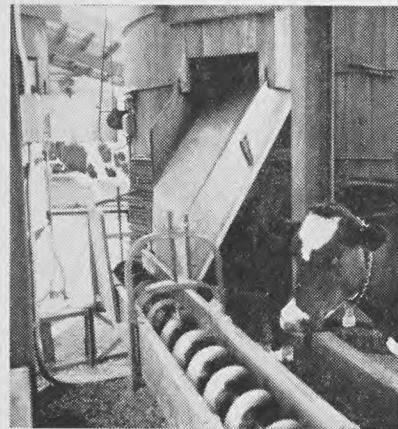
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land. They can be worked into the soil easily.

The farm's 70-head milking herd is fed silage (either corn or grass) free choice, plus a minimum of 10 lb. of hay. Silage is fed mechanically from two wood-stave tower silos. Hay is stored in two buildings,



[Guide photo
Silage is distributed mechanically along entire length of feed trough.]

one located at each side of the yard. It is fed in sheltered mangers at the front of each unit. Four electrically heated water fountains have been placed beside the loafing barn, close to the feeding area. Grain rations are conveyed by auger from a steel bulk tank directly to each milking stall.

The 8-cow milking parlor is equipped with a glass pipeline operating under vacuum to a 1,200-gallon refrigerated bulk tank. The milking machines, pipeline, and tank are all cleaned in place by mechanical means. Next to the milk storage room is a small laboratory for milk testing and other procedures associated with dairy research.

"**T**HIS new layout has been designed to accommodate up to 120 milkers and can be handled by two men," said Dr. Dave Bowden, animal researcher in charge of the project.

Comparing the loose-housing and stanchion barn systems over a 5-year period, the farm's researchers have found that milk production is about the same for both. The consumption of roughage is slightly higher for cows under loose housing but they use less bedding. Loose housing systems also require about 20 per cent less labor. It was observed that cows with large udders were more at ease and produced better under loose-housing conditions.—C.V.F.



[Guide photo
Dr. Dave Bowden is in charge of the Agassiz dairy cattle research unit.]



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28



**soils
and
crops**

Grasshoppers Are Not Through Yet

GRASSHOPPERS could be damaging crops again this fall, as well as next spring. They would come from unsprayed areas where infestation has been light, and unless they are sprayed with dieldrin, next year's grasshopper outbreak could be worse than this year's.

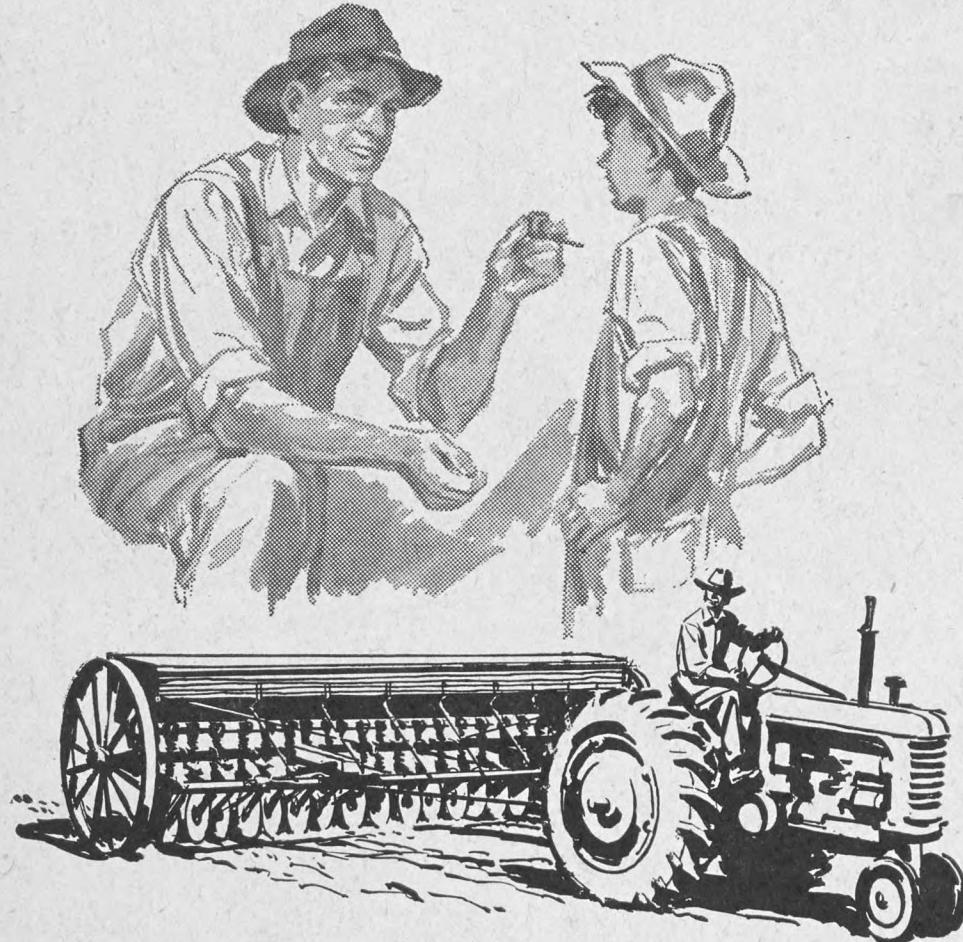
Cliff Barrett, Saskatchewan pest specialist, says the dry weather has helped grasshoppers to mature quickly, which means that they will be laying a large amount of eggs this fall. The probability is that they will be attacking the crop, clipping heads from cereal plants, and going after green oats in particular.

Mr. Barrett recommends periodic checks of fields where grasshoppers are gathering to lay eggs. When the egg-bed is found, spray it with dieldrin. v

Per Acre Returns

THREE'S an old saying about watching the pennies and the dollars will take care of themselves. Applied to the farm, this could go something like this, "Keep an eye on how much you're getting per acre and the profits will take care of themselves."

Fred Leskiw of Hamelin, Alta., has made a success of his farm by seeing that each acre returns as much as it can. He keeps yields



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And here is another suggestion you can pass along to him now... an idea from which he will reap solid benefits as the years go by. Encourage him to get acquainted with his local Royal Bank manager so that he may learn at first hand of the many ways in which the bank can work with him in shaping his own successful future.

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[Guide photo]
"Growing a seed crop will keep you on your toes," according to Leskiw.

high on his three quarter-sections with steady fertilizer applications, and by rotating his grain crops with grass. Most of this production is "marketed" on his own farm through a combination of hens, hogs and Holsteins. Cream is shipped to the Edmonton market and the skimmed milk is fed to the stock. Most of the grain is fed too. In the poultry line, Fred raises hatching eggs from White Leghorn - New Hampshire cross. Eggs go to a hatchery in the town of St. Paul, about 25 miles to the east.

Another way Fred ensures a good return for his crops is by producing all his grain as registered seed.

"Even if you can't sell any as seed, you get a crop of high quality grain," said Fred. "Growing seed makes you pay more attention to your fields. It keeps a farmer on his toes." —C.V.F. v

SOILS AND CROPS

Cover Crop Can Hold Soil

ONE result of the dry growing season has been to leave some fallow fields bare, increasing the danger of soil drifting. If there's not enough trash, you can provide surface protection with cover crops seeded in August, says Bonar Gorby of the Brandon Experimental Farm, Man.

The cover crop can be any cereal grain, but preferably oats, seeded at one-half of the regular rate, if there is enough moisture for germination. Usually, sufficient protection is obtained by leaving alternate widths of the drill bank. This leaves half the land in fallow and assures a heavier grain crop next year. A cover crop can be used also for late season grazing when other pastures are depleted.

A disadvantage of the cover crop is that an abundant fall growth depletes moisture and plant nutrients, particularly nitrogen, warns Mr. Gorby. In general, production in the following year resembles second-crop yields, and you need to fertilize the crop according to stubble-crop recommendations. This should be taken into account when seeding a cover crop, but if soil erosion is a real danger, the price you pay for this protection is not too high.

If the season continues hot and dry, and there are grasshoppers, the cover crop won't work. It will deplete whatever moisture there is, and the grasshoppers will welcome the new feed supply.

A footnote is added by Ed Molberg of the Regina Experimental Farm. He says that it's a good idea to sow a cover crop on fallow that is the same variety as will be seeded next spring. If you do, you won't have a mixture growing there next season. Also, be sure there's enough seed to take care of both fall and spring needs.

V

Mosquitoes Like Irrigation

IRRIGATION has given new opportunities to farmers, but it has also provided suitable breeding places for a multitude of mosquitoes in southern Alberta, says J. A. Shemanchuk.

The mosquito is a problem, especially in older irrigation districts, because it adversely affects economic livestock and dairy production, reduces the efficiency of farm workers, increases expenditure for pest control in urban areas, limits the development and use of recreational facilities, and can even reduce real estate values.

According to recent research, the average population of mosquitoes in irrigated areas is more than 20 times that in dryland areas. Present irrigation methods provide favorable conditions for mosquito development throughout June to August. And at least 16 species of mosquitoes are known to breed in irrigated areas.

Frequent and extensive insecticide

treatments are not only too costly but impractical in large, sparsely settled areas. But efficient use of irrigation, not permitting water to stand in low places, is an alternative to chemical control. This has been proved by comparing mosquito populations in three representative irrigated areas, which showed that good water management can reduce mosquito breeding without seriously affecting the function of irrigation. Rigorous control of water, especially as carried out in specialized row-crop production, can prevent mosquito populations from exceeding those on dryland prairie in a normal season.

V

Employment Opportunity FEDERAL FARM CREDIT CORPORATION

Several responsible positions as local Farm Credit Advisors in Ontario, Saskatchewan, Alberta. Applicants should have extensive successful experience in operation of an economic family farm unit and a background of leadership in farm and community organizations. Preference given to graduates in Agriculture, Accredited Rural Appraisers, and for overseas war service. For full information and application forms, write the Branch Manager, Farm Credit Corporation, at Toronto, Regina, Edmonton.



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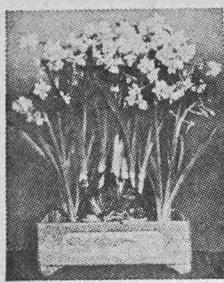
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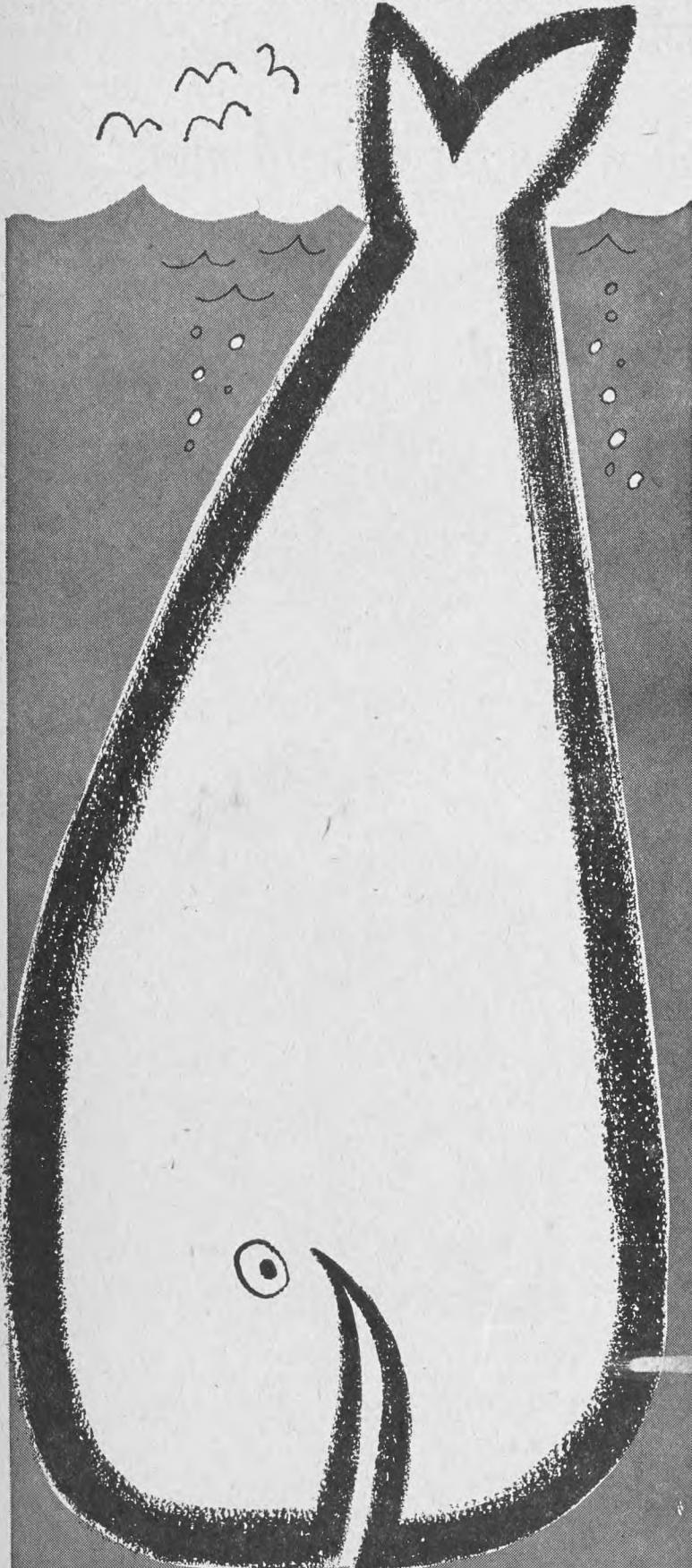
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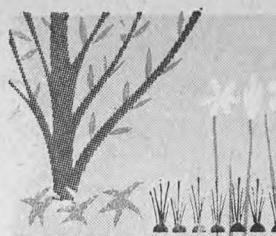
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horticulture



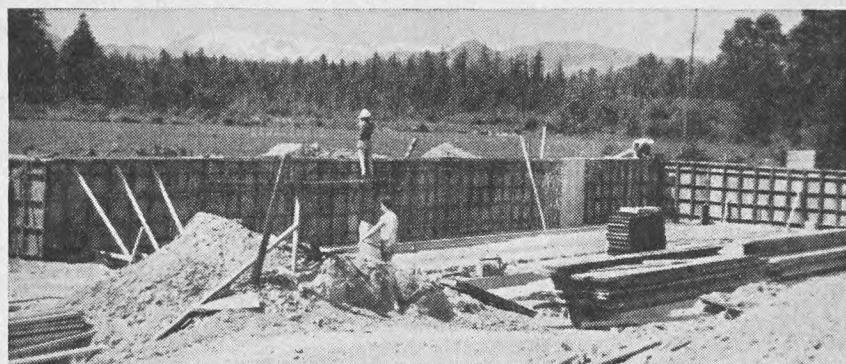
Norm Sieffert protects the crop with a combined insecticide and fungicide. [Guide photos]

Seed Potatoes On Bottom Land

NEAR Comox, Vancouver Island, Lloyd Smith and Norman Sieffert have cleared 200 acres of bottom land for a new seed potato farm. Both partners are well equipped with the "know-how" to produce high quality seed. Lloyd has had years of experience as a

grower — Norman was formerly a potato inspector with the Plant Protection Division of the Canada Department of Agriculture. They are raising Netted Gem and White Rose varieties for seed.

One thing a potato man must have is safe, all-weather storage. To take care of this, they have constructed a 1,000-ton storage unit with automatically controlled forced air ventilation—C.V.F. V



Building the 1,000-ton potato storage, which has forced air ventilation.

How to Boost Strawberry Yields

HOE round strawberries to destroy weeds and keep the soil loose, but be careful not to damage shallow strawberry roots. The Ontario Department of Agriculture also recommends that you pinch off flower stalks when they have developed. This gives you almost five times as many leaves per plant, and more food for the fruit.

Another good idea is to apply ammonium nitrate in late August or early September, at the rate of about $\frac{1}{2}$ lb. per 50 ft. of row. But apply the chemical only when the leaves are dry, or they will burn. Brush the leaves off afterwards as an added precaution.

Sawdust, or similar material, placed around plants will reduce weeds, conserve moisture and keep the fruit clean. Also, this mulching is

good insurance against winter injury, if it is done in the late fall. V

Older Peonies

DON'T divide peonies if they are less than 10 years old. The Ontario Department of Agriculture says new clumps develop slowly and show poor color after division. Leave new peonies unless you want a new stock.

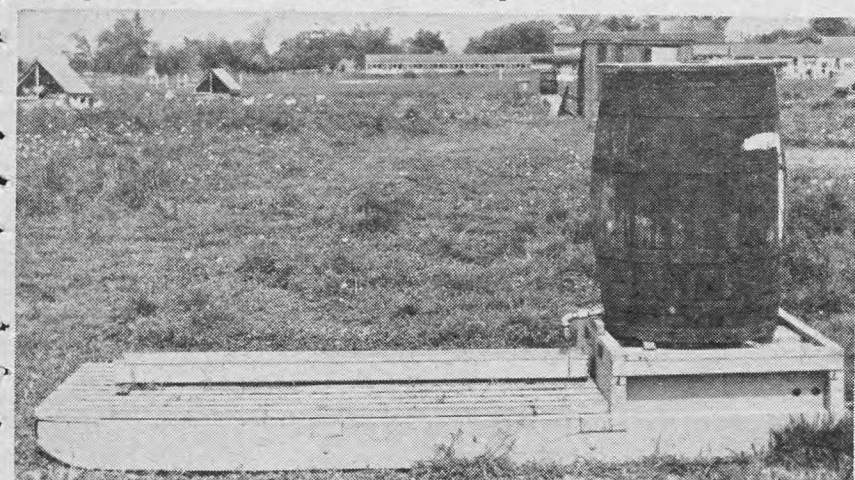
If peonies are over 10 and need dividing, dig them about the second week in September, shake off the soil around the roots, let the clump dry for a few hours so the roots become less brittle.

Separate the clump where the root connections are weak, or separate by cutting. Use a sharp knife and be sure that each new piece has 3 or 4 healthy buds.

Cut away all damaged or hollow roots. Cover buds to a depth of 2" when replanting. V

Poultry

Range Waterer Can Be Improvised



If you can't pipe water out to the range, a barrel and trough will serve. Use a gravity shut-off for the barrel outlet. Weight of the water trough, when filled to the proper level, pulls down the valve and shuts off water.

Pullets— In or Out?

INTEREST in confinement rearing of pullets is increasing, especially where land prices are high and predator losses and soil-borne diseases are a problem. Dr. J. H. Strain of the Brandon Experimental Farm, Man., says his experience has shown that mortality can be extremely low in confinement rearing, if the management is good.

Cannibalism tends to be greater in confinement, but debeaking will eliminate most of it. Dr. Strain also found that feed requirements in confinement were no greater than for range rearing, and housing body weight was similar for both systems.

The method of rearing had little effect on the age at first egg, egg weight, or feed per dozen eggs. But range-reared birds laid at a slightly higher rate. On the other hand, Dr. Strain found evidence that confinement rearing takes less labor, because the rearing area is centralized, allowing greater use of automatic equipment and easier distribution of feed and supplies.

Hopes to Cut Cost of Protein

SOME day you may be cutting costs by feeding amino acids to poultry instead of expensive protein supplements, or high protein feeds. Amino acids are the main ingredients of protein, but a chicken probably doesn't need all the amino acids found in most proteins. There is also a possibility that chickens could be fed a limited number of amino acids and extra nitrogen, and would make other amino acids from this.

M. L. Sunde, a poultry specialist at the University of Wisconsin, has been working on the problem. He is able to report that four hens, fed amino acids instead of protein since last fall, have gained weight and are laying a normal number of eggs. It's very expensive to obtain pure

amino acids at present, but Sunde foresees a time when they will be cheap and could become a real money saver.

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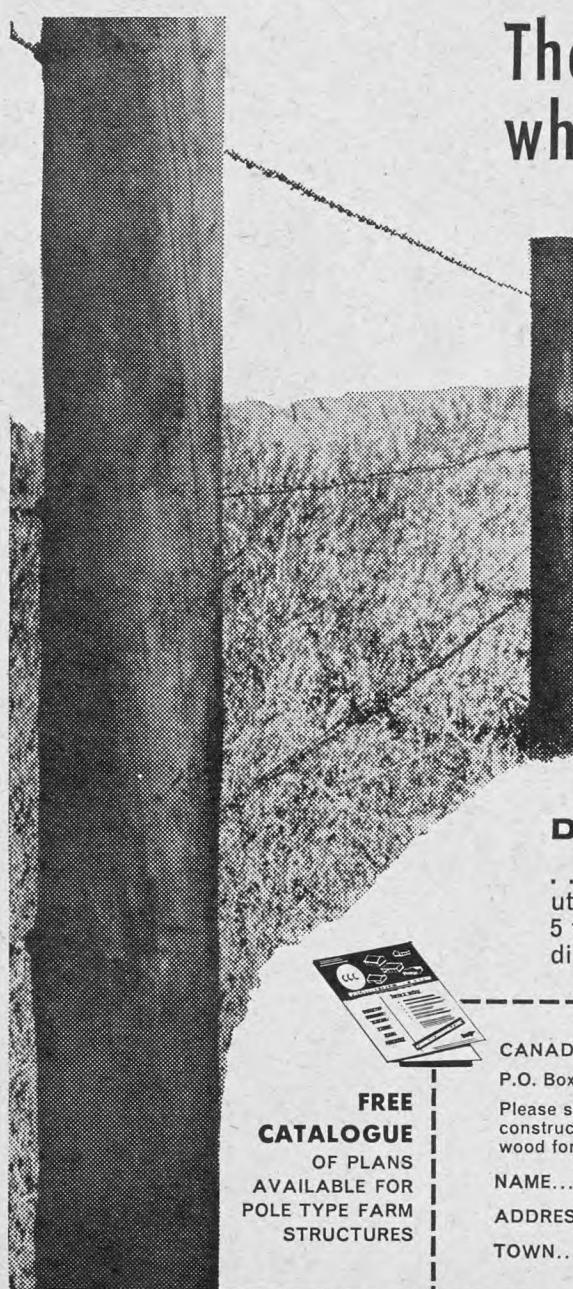
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FARM mechanics

Rings or Valves?

DO you know there's an easy way to find whether low compression readings are caused by the rings or the valves? Champion Spark Plug engineers suggest you squirt about a teaspoon of heavy oil into the combustion chambers of the affected cylinders, and crank the engine several times to distribute the oil.

Repeat the compression test. If the trouble is in the rings, com-

pression will show a marked increase because the oil temporarily seals any leakage past the rings. If the readings are about the same as before, the valves are leaking.

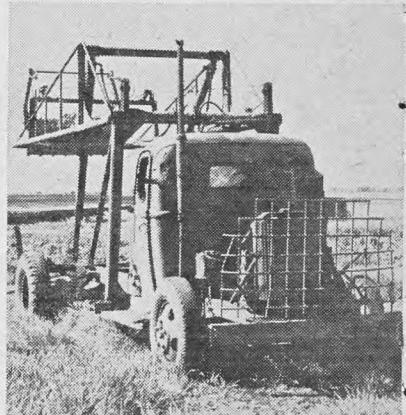
Bring the engine to normal operating temperature for the compression check, and keep the throttle plates and choke valve wide open during the test. All plugs should be removed.

If the pressure fails to climb steadily and remains the same for the first several strokes, but then climbs higher on succeeding strokes, a sticky valve may be the trouble.

Battery Water

DON'T add water above the normal level in your batteries. As the electrolyte expands, it will overflow and spill out of the vents. Spilled acid attacks metal hold-downs, cables, and other parts near the battery.

Overhead Loader



[Guide photo]

THIS overhead loader was made from an old farm truck. The truck's cab was reversed, which places the engine at the rear of the vehicle, where the radiator won't become clogged with hay or straw and overheat.

Other advantages of this loader are its long reach and its superior stability and traction. Because the main load falls in the center of the chassis, the vehicle's rear wheels won't rise when a heavy load is taken up on the scoop.

Water Test Before Softening

WHEN you install a water system and you need a water softener, be sure you buy it from a reputable dealer, warns Hon. I. C. Nollet, Saskatchewan's Minister of Agriculture. Beware of expensive automatic units and life-time service agreements offered by itinerant salesmen.

The first step, says Mr. Nollet, is to secure a water test and reliable advice. A \$150 unit may serve the purpose as well as some being sold

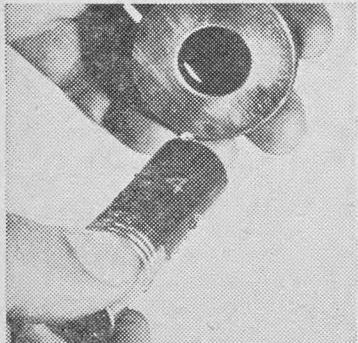
Here's why "IMPERIAL" Shotshells are the best you can buy

Quality tests in the C-I-L Ballistics Laboratory

The man on the right is making a shot that you will probably never have to make. He is firing "Imperial" Shotshells just removed from conditions of extreme cold. Temperature extremes change the stability of shotshell powders. Chamber pressures can go haywire. Velocity and patterns are affected. In the C-I-L Ballistics Laboratory, "Imperial" Shotshells must perform satisfactorily after exposure to temperature extremes hotter and colder than you will ever encounter in the field.

WATERPROOFING TESTS

In another section of the Ballistics Lab, "Imperial" Shotshells are subjected to various water-proofing tests. For example, crimps



CHECKING AN "IMPERIAL" FOR SWELLING AFTER EXPOSURE TO WATER

and tubes are checked against swelling. All these tests are routine with C-I-L Shotshells to assure you dependable shooting in any weather.

PATTERN CHECKS

Thousands of pattern checks are made under varied climatic con-

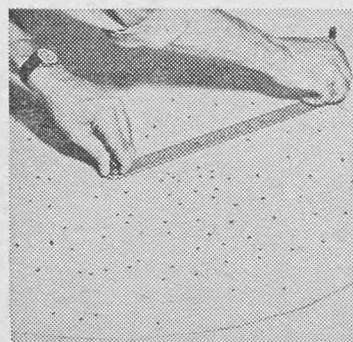


EXTREME TEMPERATURE TEST FIRING

ditions. When you shoot "Imperial" Shotshells you know your patterns will be uniform and hole-free. Shells are tested in most models of new and old guns. C-I-L maintains an armoury of over 600 firearms to measure the behaviour of ammunition.

BALLISTIC TESTS

Every week C-I-L Lab technicians test-fire more shotshells than the average hunter will fire in a lifetime. The performance of these shells is measured by complex electronic equipment. Pressures in shotgun chambers are measured for the hunter's protection. Electronic chron-

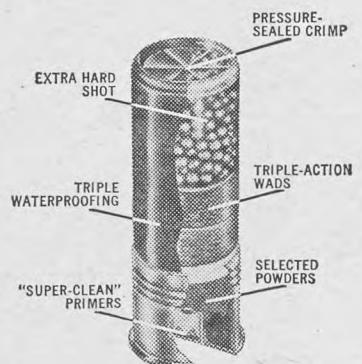


PATTERN CHECK AFTER ROUTINE TEST SHOT

ographs record the velocity of shot at various points along the flight path. Speed of a projectile can be measured to 1/100,000th of a second.

The C-I-L Laboratory is the only one of its kind in Canada. The thousands of checks carried out daily assure you of top ammunition performance, accuracy and safety. That's why most hunters in Canada shoot "Imperial", the King of Shotshells. They know there is no better.

The same meticulous attention to C-I-L quality goes into the manufacture of "Maxum" and "Canuck" Shotshells.



AN INSIDE LOOK AT "IMPERIAL"—THE BEST SHOTSHELL YOU CAN BUY



Is your club operating a Hunter Training Program? For details write to C-I-L, P.O. Box 10, Montreal.

for \$650. Choose the water softener to suit your farm home.

Water hardness is measured in grains per gallon, as follows:

1 to 3 grains per gallon is soft water;

3 to 6 grains is medium hard;

6 to 12 grains is hard;

over 12 grains per gallon is very hard.

Softeners are rated by capacity to remove hardness. A capacity of 30,000 grains is common. Divide this capacity by the hardness to find the number of gallons of water which may be softened for each regeneration. Regeneration every 10 days or 2 weeks is usual, and 15 to 20 lb. of salt is needed for a 30,000-grain softener. V

Iron is a troublemaker in parts of Saskatchewan, says Mr. Nollet. It stains clothes, dishes and utensils. Small amounts of iron can be removed from water by softeners, but larger amounts need special iron removal units. The most common are iron exchange units containing synthetic zeolite, which is regenerated periodically by passing salt solution through it. V

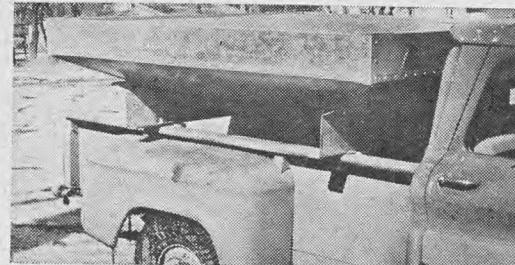
Brittle Cables

If battery, starter or generator cables are corroded, frayed, or partially broken, it usually indicates that the interior metal strands have become brittle. Cables should be replaced to eliminate high resistance in the circuits. V



Grain Box

Fits all pickups, and is easily assembled, mounted and removed. The hopper holds 65 bushels to haul grain from combine to granary. With 4" auger and added top it holds 130 bushels to load drills, clean and grind grain, and can also fill feed troughs. It is unloaded via two chutes. (Fred Neibrandt) (342) V



Cleaning Gun

The X-O Kleen Gun fits on exhaust stack of tractor or truck with universal cap, and uses exhaust gases for a high-pressure jet, wet or dry. Water with a recommended detergent is the usual cleaning solution, but diesel fuel can be used for more difficult jobs. With hot water, the gun becomes a steam cleaner. It is handy for cleaning combines and other machines. (Goodhew Distributors Ltd.) (343) V

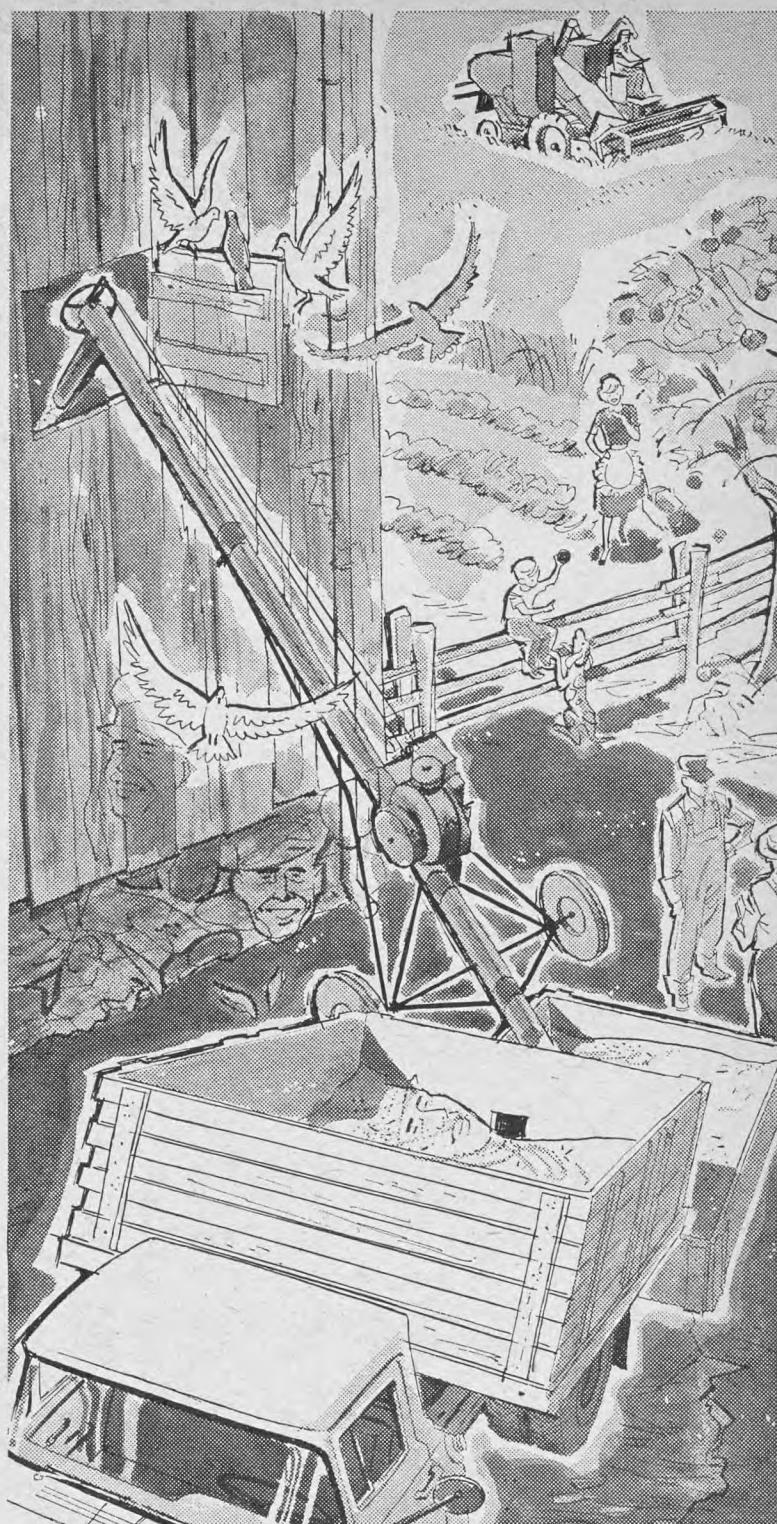


Cub Tractor

This new 7 h.p. tractor hauls dirt and other materials, and has attachments for working garden-size areas. It's also useful for snow removal. The tractor is 62" long, 38" high and 33.2" wide, with ground clearance of 6". A single lever controls front and center-mounted tools, and rear-mounted equipment. (International Harvester) (344) V



For further information about any item mentioned in "What's New," write to WHAT'S NEW Department, The Country Guide, 1760 Ellice Ave., Winnipeg 21, Man., giving the key number shown at the end of each item, as-(17).



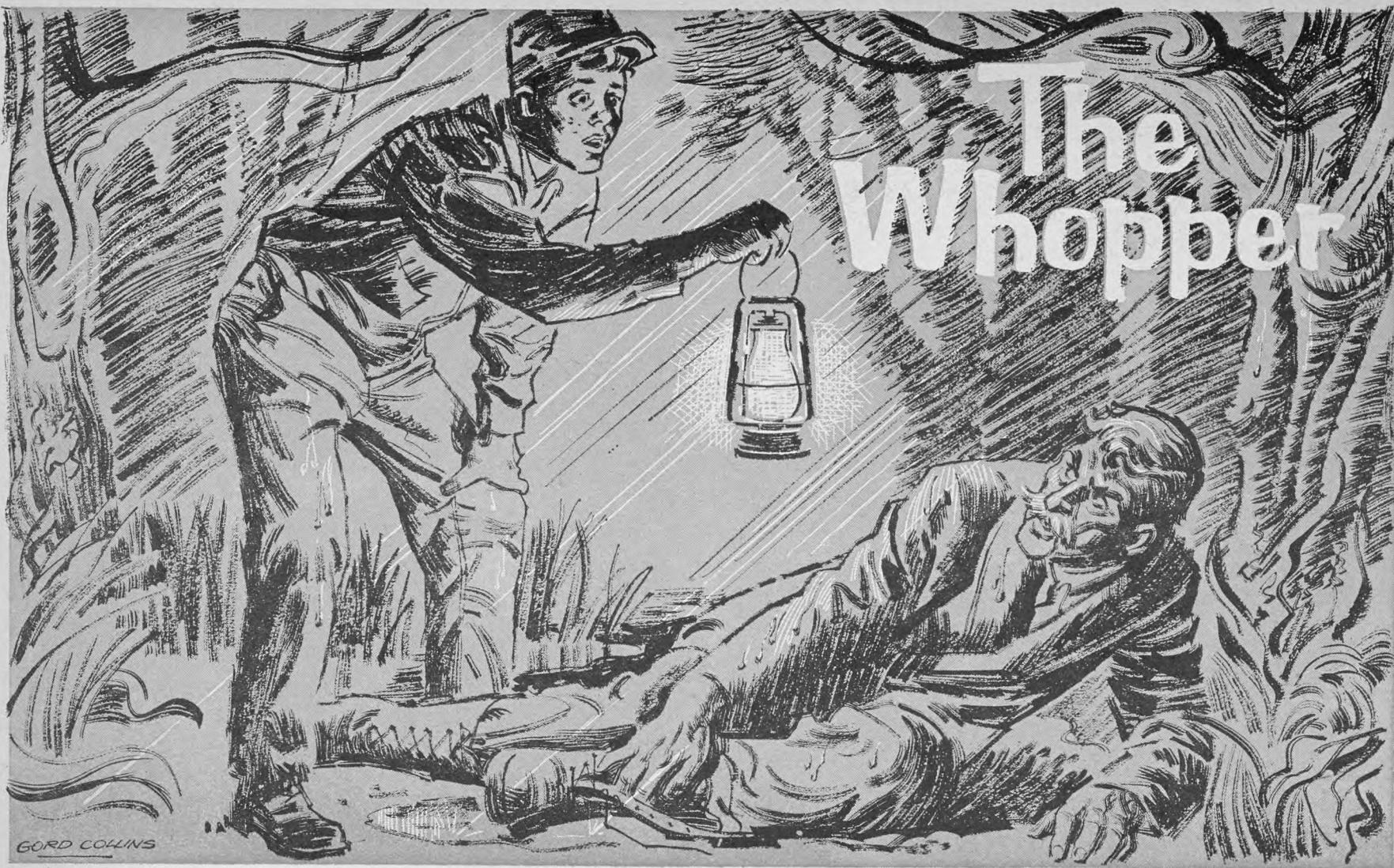
There are nine Esso Agents in this picture. Can you find them?

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GORDON COLLINS

THE cows were going out, heads low, tails swinging, as they passed through the stable door. "Gramp," I called above the sound of the clanging bells, "hadn't we better keep old Jassy in? She's going to freshen today for sure."

"Hey?" Gramp came around to where I was standing beside old Jassy. He ran a practised hand over her flanks, tested her udder, and shook his head. "Turn her out, Jack," he said. "She'll go for a day or two yet."

I watched her go, awkward as a pig on ice as she jogged to catch up with the others, and I knew that for once Gramp was wrong. Jassy wouldn't go for a day or two. She'd have her calf today, and she'd hide it out in the woods like last time. And like last time I'd get the job of searching for them and bringing them in. A Jersey cow is a heck of a hard thing to find out in the woods against a background of bleached grass, rusty yellow leaves and fall sunlight. Especially when she doesn't want to be found.

Ever since I'd come to live with Gramp and Grandma Haley after the railway accident killed my folks, I'd had a special sort of feeling for that old cow. We didn't separate our cream, and ship it off to the creamery as our neighbors along the East River road did. Gramp had a milk route over in the small town of Fairmont, and twice a day our milk was bottled (all but a couple of quarts that Grandma saved out for our use) and delivered by horse and wagon to our customers. There was no cream separator to wash on our farm, no skim milk to lug out in pails; and no cute calves to feed either.

That was one of my biggest disappointments. At home our calves were always sold, either to the butcher or to one of our cream-shipping neighbors who had plenty of skim milk to feed them.

Most of Gramp's cows, though, were a stodgy lot. After a few lonesome-sounding moos, they forgot their lost babies and settled down to producing milk for the customers as if motherhood was something that had never happened to them. But old Jassy was different.

Jassy yelled for days. She'd bellow and stamp around the barn when she was turned out in the morning. Then she'd gallop in at night, to stop and stare sad-eyed at the empty corner where her calf had lately been tied.

LAST year, on my twelfth birthday, she had tried to outwit us by hiding her newborn calf out in the woods. That little heifer was four days old when I found them, and I begged so hard to keep her that Gramp reluctantly gave in. On one condition, he said. I had to feed the calf myself, and I had two days in which to train her to drink. If I failed, well, that was that. The calf had to go.

If I'd had new milk to feed that calf, I might have had better luck. But the prepared stuff that Gramp brought home had no appeal at all as far as the calf was concerned. The hungrier she got, the more she bucked and struggled and spilled. And the more she hollered, the madder old Jassy got.

The calf got her head out of the rope the first day, and I found her nursing from her mother. I tied her up. Then old Jassy broke her stanchion, and in the morning there they were, lying down together on the busted handle of Gramp's best hay fork, with the calf's belly as round as a drum with good Jersey milk. I had only one day left, so I started pouring slop made of calf meal and warm water down the calf, using a pop bottle with a rag tied over the neck for a nipple.

When Gramp asked if I'd got her drinking yet, I told him "yes" because I figured it wasn't actually a lie, seeing as I was getting some of the stuff down. She'd be drinking by the next morning for sure; then Gramp could see for himself.

ONLY she wasn't. That night old Jassy broke loose again. And when Gramp came into the barn in the morning and found me rushing to clean up the floor and trying to hide the pop bottle, he gave me a long hard look.

I stammered, trying to explain, but he cut me short.

"Jack," he said, "A lie's one thing I can't abide.

The Whopper

by EDITH MOSHER

Illustrated by GORDON COLLINS

If you'd told me the truth, that the old cow was making it tough for you, I'd have given you an extra day or two to train that calf. Now you have to learn your lesson the hard way." That afternoon he sold the calf.

For the first time, Grandma sided with me against Gramp. "You might have let him keep the calf, Justin," she said mildly, as she forked sizzling ham onto our plates that night at supper. "After all, it was only a little white lie the boy told."

"White lie fiddle-faddle!" roared Gramp. "Every lie is black as sin and the sooner this boy learns it the better." He followed that up by preaching a regular sermon from the text that no lie is ever justified, and "A liar's reward is the bitter humiliation of defeat, failure and loss."

I felt badly about the calf. It was a bitter lesson for a kid of twelve and it took me a month to simmer down and get over it. But I never told Gramp another lie.

But John O'Connor did. Johnny was the young fellow who helped us out during haying and harvesting. That fall when he didn't show up for two days right in the middle of combining he told Gramp his mom had been sick. Then Gramp found out that Johnny himself had been sick — from drinking moonshine liquor. And he'd let Johnny know his opinion of liars in a voice that carried for two miles down the valley.

"I don't hold with lying either," Grandma said after one of Gramp's roaring rampages, "but the day may come, Justin Haley, when even a stiff-necked old coot like you will have to change his tune and tell a white lie or two in the interests of justice."

"Ha," snorted Gramp, "when that day comes, woman, I'll buy you that Spode tea set you're always talking about!"

Gramp was getting stubborn and stiff-necked, I thought as I closed the gate and listened to the sound of old Jassy's bell growing fainter among the willows in the pasture. Anyone but a dope would know better than to turn her out today.

LATE that afternoon a big bank of dark cloud rolled up out of the west, blotting out sun and bird song and holding the whole East River valley in a waiting sort of vacuum.

"Best get the cows up a little early," Gramp said when we came out on the porch after supper. "Don't want a thunder storm to catch you off in the swamp."

I wasn't afraid of storms but I felt relieved when I saw the cows bunched in a huddle just beyond the gate. I had the gate unhooked and was swinging it back when I realized that something was missing . . . the brass bell, that's what it was. The big bell, the one Jassy wore, had the clearest tone of all.

I stood still a moment as the other cows brushed past going up the lane. What should I do? Big dark thunderheads were piling up beyond the hill. The first faint rumble sounded off in the distance. If I went back for Gramp now, old Jassy might get so far away that it might take me two days to find her. On the other hand, if I went on, the storm would catch me in the swamp. As

I hesitated, the sound of the thunder died away, and in the silence I heard the faint, far-off tinkle of a cow bell coming from the woods on the far side of the swamp.

The thunder was growing louder now, and flashes of lightning lighted up the open glades of the pasture. But the far-off sound of the bell led me on, through water holes and across deadfalls and tangled brush piles. Soon I was farther into the woods than I had ever been before, far beyond the back fence with its tell-tale break in the sagging wire.

Suddenly there came a flash that seemed to set the air on fire. And right on top of it came an earth-shaking roar that sent me forward on hands and knees as if I had been booted from behind. All at once the rain was coming down in torrents, soaking into my jacket and sneakers. I struggled to my feet and ran for a big spruce.

It was a foolish thing to do. I might have been electrocuted, but by some miracle my tree was spared. And when I crept out into the dark rainy woods I got the shock of my life. I was lost.

EVERYTHING looked different in the twilight. I couldn't remember from which side I had entered the little clearing. Nor could I recall how long it had been since I last heard the cow bell. Gramp had once shown me how to take my bearings from

the sun, but now there was only this dark sky from which gallons of rain were falling. And nobody, not even Gramp, knew where I was.

I did a crazy thing then. I panicked and ran. I yelled, too, until the echoes scared me into silence. Shivering, leaning against a big wet birch, I suddenly found something: a weaving pattern of broken ferns and flattened grass that meant a trail—and on the trail, fresh cow sign. It was not my trail, but Jassy's.

"Co-boss, boss, boss," I bellowed, not actually expecting an answer. But from the clearing behind me an answer came. It was the sharp bark of Bob, Gramp's wire-haired terrier.

Bob came bounding through the brush, yelping as he came. He leaped upon me, licking my face. And behind him plodded Gramp in a raincoat and high rubbers, carrying a rope and a lantern.

"Well, well," he said, pretending not to notice that I was just about blubbering. "When you didn't show up, we figgered you'd found that ornery cow and were sitting out the storm some place."

He chuckled when I admitted I had been lost. "You weren't a hundred yards from the fence, Jack."

Feeling like sixteen kinds of a fool for getting myself lost, I led him to the place where I had seen the cow sign. Gramp studied the ground carefully. "Wait," he said, "used to be an

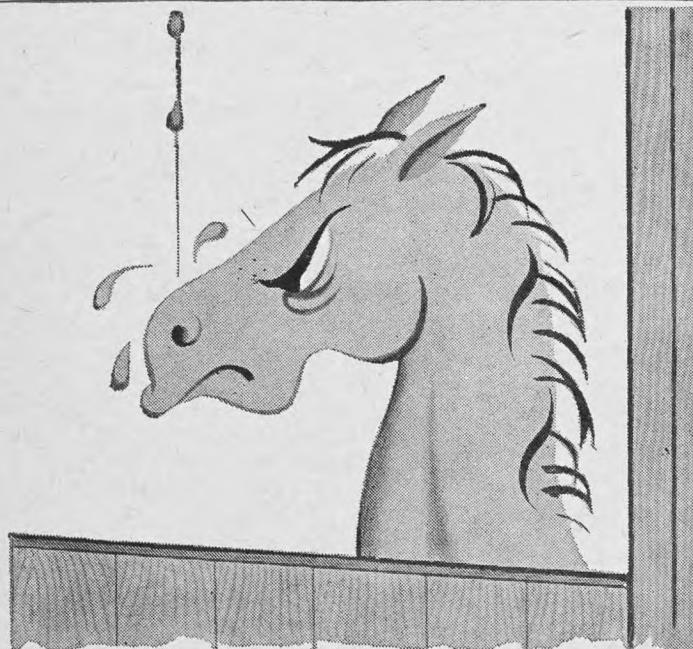
old logging road here." He went floundering off through the brush. In a minute he sang out. He had found the old road, muddy and weed-grown, but faintly showing a wavering line of cow tracks.

THES storm was coming back. Flashes of lightning flickered overhead and thunder growled off to the northwest. "She went down here all right," said Gramp. "But I've had about enough of this for one night. Let's leave her be 'till tomorrow."

Now that he and Bob were here I was eager to finish the job. "We've come this far," I begged. "She might be right around the next turn—with a new calf, maybe. It'd be murder to leave them out in the woods on a night like this."

We had gone a quarter of a mile when there came a sudden thrashing of bushes and something went bounding off through the woods. Bob darted between our feet.

"Wildcat," said Gramp, swinging the lantern. I felt the hair on my neck prickle. We stopped to listen, but there was only the patter of rain on wet leaves and the rumble of distant thunder. We had just started on when Gramp stumbled. He bent down, groped in the wet weeds and held something out in the lantern light. "There goes our last hope," he said. The thing he held was Jassy's bell, dangling from a broken strap. (Turn to next page)



Don't saddle Dobbin with a leaky roof!

Poor horse. His reward for a lifetime of hard work is rain in the face. Why doesn't the boss get the roof fixed? Even a horse knows that leaks left unattended just get worse. If money's the problem, all that's needed is to apply for a Scotiabank Farm Improvement Loan. A Scotiabank Loan is available easily and quickly for repairing buildings, buying new machinery, upgrading livestock, and many other worthwhile projects.

Don't wait to get your farm in the shape you want it. Visit your Bank of Nova Scotia branch manager soon. Find out how a Scotiabank Farm Improvement Loan can help you.

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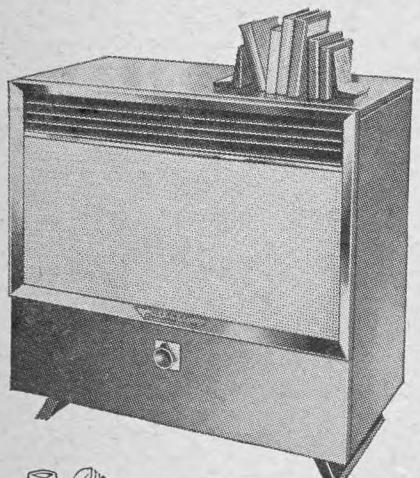


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"How does the heat get out?"

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"Has the heater ever let you down?"

"It sure has! Every time there's a power breakdown we're uncomfortable."

"That's exactly what I mean—you don't need electricity, no fan but lots of heat."

"It sure looks pretty nice. Does it get hot on the top?"

"No sir! The whole cabinet's cool all the time. Another feature I want to mention is the location of the controls. Look, how safe they are... away from the kiddies."

"And you say it's available for gas, propane or oil."

"Yes, and furthermore it's backed by Clare Brothers of Preston... and they have been in the heating business for a long time."

**CLARE BROTHERS
LIMITED**
PRESTON, ONTARIO

I have always blamed myself for what happened next. We turned back. I asked to carry the light, but instead of lighting the trail ahead I flashed it everywhere, imagining a lurking wildcat under every shadowy brush. Gramp was old, and he was tired; he had stumbled once. Now he stumbled again, caught his toe in a root and pitched against me, nearly knocking the lantern from my hand. He fell with a thud and his left leg buckled under him.

"Gramp," I cried, "are you hurt?"

He didn't answer. He didn't try to get up. He just sat there, all huddled together.

My teeth began to chatter. Then I saw him fumbling with the laces of his high rubber boot. His hands explored his bony shin, and he winced at every touch. Then he looked up and his wrinkled old face was set and mad-looking. "Blast that cow!" he said. "I've gone and broke my leg."

I stared at him unbelieving. He can't have a broken leg, I thought, he just can't! What'll we do...? I didn't know I had said the last words aloud until Gramp answered. "Do? Only one thing to do. Go for help. Get Doc. And get Johnny O'Connor back here as quick as he can make it with the mare and the spring wagon." He fumbled at his belt. "Where's that rope?"

"Call Bob," he commanded, "and tie the rope to his collar. He knows the way home."

Bob leaped away at Gramp's command, and I had to follow at top speed or have the rope jerked from my numb fingers. I took one last terrified look at my grandfather crouching beside his smoky lantern and tore off at the little dog's heels.

GRAMP didn't catch pneumonia, as Grandma thought he would. But it was late November and the ground was sparkly with the first frost when he began to hobble about on the new crutches Doc had brought out to the farm. Johnny came night and morning to help with the milking and to deliver the milk, and life had settled back into its old groove, except for one thing: that empty stanchion in the cow stable.

For Jassy was gone. It almost seemed that raging summer storm had washed her from the face of the earth. After Gramp's accident, neighbors joined in a search of the woods and swamp, but three days of heavy rain had blotted out the tracks. Finally even Gramp gave up hope of ever finding her alive.

Only I had never given up. It seemed as if I had to find that cow, if find her I could, to make up to Gramp for my part in that night's happenings. Not a word of blame for me had the old man uttered, although I had been the one to insist we keep on when he had been ready to give up the search. Long after the others had given up, still blaming myself, I cruised the swamp whenever I had a free hour or two.

Sometimes I dreamed Jassy was back and waiting at the stable door with a pretty heifer calf just like herself. Then I would pull on boots and jacket and creep down to the barn in the winter dawn, hoping to find them there. Of course, I never did.

IT was mid-January when we heard about the cow over in Vernondale, twenty miles away.

Gramp got a letter from a young widow, Mrs. Carl Wenzell. She wrote that she had a cow in her barn that had wandered, gaunt and hungry, out of a storm with a young calf at her heels. Mrs. Wenzell kept the cow, thinking it to be one that had strayed from the farm of one of her neighbors, Conrad Heinz.

Heinz, she wrote, owed her husband Carl a debt at the time of Carl's death—a debt that she had been unable to collect. Later, Heinz had moved away, leaving no forwarding address and no money to settle the debt. She felt, she said, that God had sent her the cow in payment . . . Then I heard, Mr. Haley, that you had also lost a Jersey, and if this is your cow, not Heinz's, then I have no right to keep her. Would you please come and look at the cow, and let me know?" It was signed "Berta Wenzell."

"I hope it isn't Jassy," said Grandma when Gramp had finished reading the letter. "Berta Wenzell needs that cow. She had to sell their two cows to settle expenses after Carl died, and she's got a little boy there—peaked-looking little tyke—might go with TB like his daddy. He needs milk." Grandma had a sister living over in Vernondale, so she knew some of the German families there.

Next day I begged Gramp to go over to Vernondale. But it was not until Saturday, when Johnny O'Connor had an errand over that way that he finally gave in.

THE Wenzell place was clean and bare-looking. Mrs. Wenzell came to the door. Her blonde hair was pinned back in a bun but she was younger than I thought she'd be. When she came out, pulling the door shut behind her, I saw that she was wearing jeans and a man's plaid shirt. The "peaked-looking" little boy peeped from the window.

"I've got the calf drinking now," said Mrs. Wenzell as she led the way back to the snug stable. "He's a lovely calf. She—she's a lovely cow, too, Mr. Haley. If she's yours, I know you'll be glad to have her back."

"And if she isn't mine?" asked Gramp.

"Then I'll keep her and thank the Lord. If she isn't yours, she's Heinz's—and he was owing me \$200." She waved a hand at the cleared meadow beyond the barn. "My place here cuts enough hay for two or three cows. We can raise a calf every year. Little Carl loves calves and—and it would make a bit of income . . ."

I blinked to rid my eyes of sun-blindness. But even sun-blind, I knew the search was ended. The mystery was solved. Here in this warm stable, placidly chewing her cud, stood old Jassy.

The old cow swung her head. I could have sworn she recognized Gramp in the same moment that he recognized her. Then she lowered softly and stretched her neck protectively over the low partition that divided her stall from the pen where a saucy-faced little bull stood, eyeing us with young-calf curiosity.

"Is—is she—your cow?" asked Mrs. Wenzell in a thin-sounding voice.

Gramp just stood there, leaning

on his cane, favoring his lame leg a little, staring at old Jassy. And right before my eyes he slowly began to shake his head.

I gasped. Was that man sick in the head or something? Wasn't he going to say that it was our cow, our old Jassy that we'd searched the woods for, that had been the cause of the accident that had left him lame, maybe for life? Well, if he wouldn't tell her, then I would. I opened my mouth to speak.

Gramp must have sensed what was coming. For all at once I got a jab in the ribs that nearly knocked the breath out of me. It wasn't like Gramp to do a thing like that. But I didn't have time to wonder why he did it because my ears were just about numb from the shock of listening to him tell one of the biggest whoppers I ever heard—Gramp, who could never abide a lie or the fellow who told one!

"Nope. Never saw her before in my life," he was saying. "Must be the one this Heinz fellow lost, after all. My cow was bigger and had longer horns. Guess you get to keep her, Mrs. Wenzell."

"Thank God," said Berta Wenzell.

She smiled at Gramp. "I had to send you word," she said, "it wouldn't have been honest not to. But, oh, if you knew what it means to my little boy—having this calf. 'Storm,' we call him, because he came out of the storm to us."

Gramp patted the calf's sturdy back. "Storm," he mused, "little Summer Storm."

"December," corrected Berta Wenzell. "It was Christmas Eve. That's why I've thought it must have been God who sent them."

"I think perhaps He did," Gramp told her.

His warning look kept me silent until we had reached the end of the lane. Then the words I had been holding back came out in a rush.

"It was Jassy. Gramp, you knew it was! You told a lie and said she wasn't your cow, and it was Jassy all the time."

Gramp smoked his pipe a moment in silence. Then he said, "Boy, I told you once that a lie is never justified. I also said you had to learn your lesson the hard way. Well, I had to learn mine the hard way, too. Back there in that barn I learned that a fellow can't always go by the rules. I told a lie and now I got to suffer the loss. But darned if I don't believe that lie was justified!"

I thought of the little boy who needed milk and butter, and needed a calf to pet. And I thought of the old cow, lying out in the swamp at night, enduring cold and hunger and the threat of wild animals to keep her little one with her. And I remembered Berta Wenzell saying, "We can raise a calf every year." "Yep," I said, "You did the right thing, Gramp—for Mrs. Wenzell—and for Jassy too."

"Well," said Gramp. "That's settled then."

He saw Johnny's truck rattling down the road and he began to button his mackinaw. "Let's ask Johnny to run over to Fairmont on the way home," he said. "I got to stop at a store and get your Grandma that Spode tea set."

Home and Family

The Country Guide's magazine for rural women

Quilts of Quality

by
ELVA FLETCHER



[U.B.C. photo]

QUILTING is a sociable kind of handicraft. Perhaps this stems from the fact that it often brings families and friends together to achieve a common goal. It has close ties with the home and family and, for this reason, it seems appropriate that Canada's Women's Institutes, in their work for home and country, should try to preserve traditional quilt designs and stimulate interest in new ones.

Perhaps this is why so many of the women attending the biennial meeting of the Federated Women's Institutes of Canada in Vancouver last month were drawn to the display of quilt designs arranged by Mrs. W. A. Thomson, of Pense, Sask. There were 85 designs in all. These were selected from entries by Institutes across Canada in the organization's Tweedsmuir handicraft competition 2 years ago, which Mrs. Thomson convened.

Even she was surprised at the number of entries submitted in the competition. They came from nine provinces—in a total of 18 books—and each of them contained 16 quilt block designs, some of them old, some of them new. The next step soon became apparent: FWIC needed to gather and preserve the patterns. The job went to Mrs. Thomson with the help of home economists Margaret Pattillo and Helene Duce of Saskatchewan, Helen McKercher of Ontario, Anna Templeton of Newfoundland and Rita Underhill of New Brunswick.

Some of the important points the committee looked for were: pleasing color combinations; sharp points, true curves and circles in pieced blocks; precise, uniform stitching; well-trimmed seams; narrow seams on applique; originality of

design; clever adaptation of color or arrangement. These, according to Mrs. Thomson, are the marks of quilts of heirloom quality.

Now that the quilt design kit is complete Mrs. Thomson can smile about it. But she's quick to admit that it was a time-consuming, painstaking job even after she and her committee had made their selection.

When she found that printing costs prohibited publication of the patterns in a hard cover book, and that commercial stenciling was also expensive, she decided to do the job herself. First, she traced 80 designs. Some, of course, were relatively simple to do; others were extremely complicated. But irrespective of kind, she said: "I had to be so very careful to turn out an accurate pattern." Tracings complete, she transferred all 80 designs onto stencils—the first time she had ever cut stencils or used a stylus. She's quick to admit this was a new skill for her to learn.

SHE estimates she took about 100 hours to do them and, at one point, she worked 10 to 12 hours a day on them. Her husband even went off to the University of Saskatchewan's Farm and Home Week without her so she could finish them.

To further perpetuate the quilt designs, Mrs. Thomson assembled a set of colored slides and then authored a commentary to accompany it. The commentary comes out as a quick lesson in Canadian geography. Listening to it, you may even go map-searching for such places as Oyster Bed Bridge, Amherst, Lennoxville, Swan River, Bounty and Aldergrove.

For the imaginative there are stories in the names given to the quilt blocks: Ship in Sail which, strangely enough, comes from the prairie;

Honeymoon Cottage, of old-fashioned charm; Mother's Dream; Orange Peel; Evening Star; Wedding Ring; Stepping Stones; Log Cabin, one of the oldest of quilt patterns and as variable as the makers' desire; Marilla's Garden, inspired by a visit to "Avonlea," birthplace of the beloved heroine of the "Anne" books by L. M. Montgomery.

EUPHIE THOMSON has the experience that makes a good handicraft convener. A graduate of the University of Manitoba's School of Home Economics, she has always encouraged crafts in her community. For example, she helped to introduce the successful crafts program in the Pense district that offers instruction in ceramics, weaving and rug hooking. Husband Wallace, who is well-known in Canada's professional agricultural circles, also became involved in weaving classes and his wife quite freely admits that he is a better weaver than she is. But there is a reason: she says he's better at mathematics.

She's especially interested in her community's young people and last June she received a silver anniversary award for her work as a 4-H leader. Saskatchewan's Homemakers' Clubs also know her well; she was their president for a time. She's performed these many services and, at the same time, watched over her family—her husband, two daughters, Jean and Margaret, both of them University of Manitoba graduates, and son Douglas, a graduate of the University of Saskatchewan.

Now, thanks to Mrs. Thomson and her committee, Canadian quilters have a new collection of quilt designs that record a little more of Canada's handicraft story contained in an inexpensively priced kit.



Perennial borders yield rich harvests of flowers in August. This one has a gently curved edge along the lawn and flowering shrubs as a background. Behind it there are apple trees.

LAST year when the International Plowing Match was held in our part of southern Ontario, we farmers of Elgin County were encouraged — by means of a contest — to improve the appearance of our homesteads. The response was good and the thousands of visitors to the Match agreed that the painted barns, tidy barnyards, well-kept lawns and gay flower beds enhanced the beauty of our countryside.

For the most part, the flowers grown on each competing farm were cared for by the wife. After all, a farmer laboring at chores and working in the fields all day has little time for growing flowers. And if you are a farmer's busy wife, you will probably discover that it is wise to confine your efforts to raising a few easily-grown annuals and perennials unless you have a real love of gardening, unlimited patience and a "green thumb."

If you decide to go ahead, select a sunny location for your flower bed. While any fertile soil is suitable I chose rich clay loam for my border because most perennials grow well in a fairly heavy soil and weeds are more easily controlled. In the fall my husband helped me by plowing and manuring a strip of land between our back lawn and a small orchard. He disked and cultivated the following spring. Then I raked until the ground was level.

We made the border 10 feet wide to allow for a background of flowering shrubs and tall-growing perennials. This, however, isn't necessary. A narrower border provides color in your garden if it is well planned. A garden fence along which rambler roses have been trained makes an excellent background.

YOU can obtain plants both quickly and inexpensively. For example, you can grow perennials from seed in a shaded spot in your vegetable garden (a cold frame is excellent for this purpose if you possess one) protecting them with evergreen boughs during the first winter. Friends and neighbors will share plants when they divide their perennials and, once your flower bed is established, you can exchange plants with other enthusiastic gardeners. Some of my best perennials came from a local branch of the Women's Institute whose members exchanged bulbs and plants at their April meeting.

You can also grow wild perennials in your garden and searching for these plants provides an excuse for many pleasant excursions. Here, in southern Ontario, I use those that flower in the spring because later varieties often grow too rank. I plant them toward the back of the border because they flower when most of my perennials are just coming through the ground. There, later, they revel in the shade they love.

"Spring's here at last!" I tell my husband when I see star-like hepaticas—pink, mauve and white—blooming at the same time as snowdrops among

patches of melting snow. They are followed by bloodroot, sweet-scented violets, wood anemones, and dutchmen's breeches in quick succession. And, finally, trilliums (Ontario's chosen flower) and red-spurred columbines make a wonderful display.

Through the years, I have improved my border by buying a few plants such as good seedling phlox, large-flowered iris, peonies and oriental poppies. The phlox in white, pink, rose, red, mauve and purple have been a good investment. If I remove the dead blossoms, they are the mainstay of my flower bed from July until the first hard frost.

DOUBTLESS you will plant bulbs for color in the spring. Be sure to buy those of good quality and they will flower for years. I plant them in "drifts" or clumps of 5 or 7 of the same variety—the smaller kinds to the front of the border and tulips and daffodils farther back where their dying foliage will be hidden by growing plants. I put a handful of bonemeal under each planting and a little gravelly sand under each bulb to prevent it from rotting in the heavy soil. I only dig the bulbs when they cease to flower. A little bonemeal sprinkled around each planting in early spring encourages bloom.

You will probably find, as I do, that you work hardest in your perennial bed in early spring which I find the most satisfactory time for dividing and transplanting perennials. It is then I consult the notebook in which during the grow-

Planning a Perennial Border

by DORIS MEEK

ing season, I've jotted down the name and position of those plants which require attention.

"Transplanting again," my husband says. "Don't you ever let the poor things grow?" But I pay no attention for, using my border as a canvas and spade and trowel for brushes, I am creating flower pictures to follow in succession. I try to establish rhythm and balance in my flower bed; and, by using "accent" plants and foliage in various shades of green, I attempt to create an illusion of abundant color during the growing season.

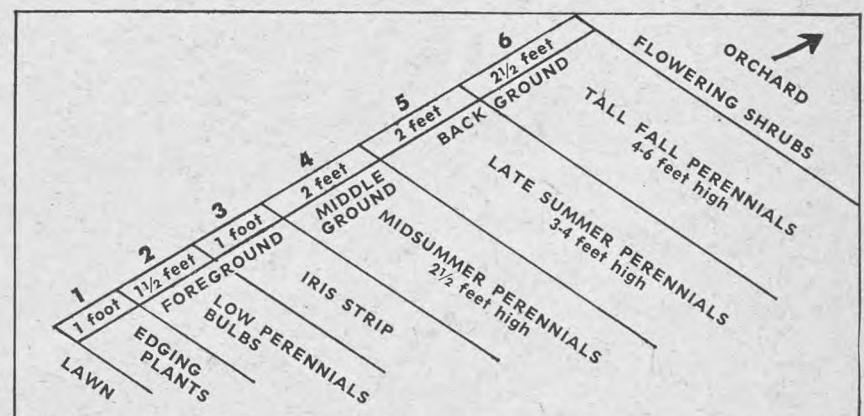
Transplanting finished, I loosen the earth around all my plants with a hoe and kill the weeds. I usually hoe the front of the border for the second time while it is still possible to walk among the plants. The back then needs little attention for the shade from the tall plants discourages weeds and preserves moisture.

I rarely use dusts or sprays because, fortunately, I have little trouble with fungus diseases or chewing insects. This may be because spray used in the little apple orchard drifts into my flower bed. If I find an unhealthy plant, I cut it down or pull it out.

IN the late fall when little bloom is left, I cut down every plant and weed the border for the last time. The plants need no protection as I only grow those which are hardy in our district. Tender plants need too much care and attention. However, I leave undisturbed the leaves which fall from a nearby maple. They make a good

PLANTS FOR THE BORDER

NOTE: Ten feet is the ideal width for a perennial border because it allows for the planting of shrubs and tall-growing plants; but a border only two feet wide can beautify a garden.



1. *Arabis, cerastium, candytuft, dwarf iris and Michaelmas daisy, coral bells, armeria, campanula carpatica, viola.*
2. *Sweet William, pinks, campanula, columbine, trollius, pyrethrum, evening primrose, platycodon, agrostemma.*
3. *Iris and dwarf hemerocallis.*
4. *Tulips, lupin, Chinese delphinium, shasta daisy, peony, dwarf sunflower, lythrum, gypsophila, purple cone-flower.*
5. *Phlox, hemerocallis, hardy lilies, delphinium, monkshood, oriental poppies, Michaelmas daisy, anchusa, echinops, veronica.*
6. *Helianthus, helenium, hibiscus, hollyhock, bocconia, thalictrum, spring wild flowers.*

mulch around the plants which push through them easily in the spring.

If you have prepared your perennial bed well before planting, you won't need to do much fertilizing. Occasionally my husband covers my border with strawy cow manure after freeze-up, keeping it well away from plants having fleshy roots which might rot. I do like to put a little well-rotted cow manure, bonemeal or a balanced commercial fertilizer in the bottom of each hole when transplanting. Search your barns for suitable material; your husband, like mine, won't always approve but if your border is a success he will be proud of your flowers.

If you decide to start a perennial

border this year, plan carefully with the help of a good gardening book from your nearest library. Although a large bed is most satisfactory, one must always remember that a neglected flower garden is a sorry sight.

If you decide to grow a few perennials from seed, choose those which are hardy in your district and persuade your husband, after his crops are harvested, to help you prepare your border in the fall, preferably where it can be seen from the house and the road. A small, well-tended flower bed, near the farmhouse, can bring pleasure to its owner and add to the beauty of our countryside. V

It's Important to Play

As adults we often fail to understand the importance of play to a child. For ourselves, we may think of play as recreational activity of one kind or another. For the child, it's an important part of his intellectual and physical development. Commenting on play in a child's life, Dorothy Keith, a lecturer in child care and development at the University of Manitoba's School of Home Economics, makes these points:

1. As a child builds with blocks, climbs ladders, rides a tricycle, throws a ball or manipulates scissors and crayons, he develops skills in using his body.

2. As he imitates life around him by assuming the role of farmer or fireman or the like, he learns about his social environment. Play with other children in situations of this kind gives him practice in such social skills as sharing, co-operating and so on.

3. As he solves problems, makes decisions, and discovers for himself the properties and characteristics of play materials, he aids his own intellectual development.

4. Many play activities become avenues of self-expression; they offer release for pleasant and unpleasant emotions and a means of expressing creative urges.

WITH his limited vocabulary and experience, a child needs to express his feelings and ideas through action. Play offers him the opportunity to do so in a socially acceptable way. He has strong urges to make things: play equipment such as paints and blocks, coupled with his parents' acceptance of his inventions, fulfills these needs.

Children like to feel things. This is one reason they enjoy sand, water and mud. Because they are almost always subject to control by adults, and by their own physical limitations, children sometimes need to "boss" a situation. The handling of raw materials fills this need. Lastly, their use of substances that can be seen and held and felt helps them to safely resolve their emotions and tensions.

If you offer children play materials that are "messy," Miss Keith suggests as little restriction as pos-

sible. She says that too many "do's and don'ts" defeat the basic purpose of giving children these things to work with.

Here are her suggestions for making and using finger paint and play dough:

Finger Paint: Soften $\frac{1}{2}$ cup laundry starch in cold water. Add 1 quart boiling water. Make thick starch, stirring constantly until mixture thickens. When nearly cool add $\frac{1}{2}$ cup mild soap flakes and $\frac{1}{4}$ cup inexpensive talcum powder. Stir until well mixed. When cool pour into a number of small screw top jars. Color each jarful with poster paint or vegetable coloring.

Children need a smooth washable surface to work on; some kind of coverall (an old shirt or apron) to wear with sleeves rolled up; glazed paper in large sheets; sponges for wetting the paper; a large basin of water close by for cleaning up.

Play Dough: Mix together and knead thoroughly 1 cup salt, 1 cup flour, $\frac{1}{2}$ cup cold water. Keep in tightly covered jar or bowl, or wrap in waxed paper and store in the refrigerator.

For children, it's part of the fun to help mix the dough. Work on a washable surface and let the children use rolling pins or cookie cutters.

Clay: Clay is available from school supply firms. Miss Keith recommends the commercial hardening type as being more satisfactory than the non-hardening varieties such as plasticine. You can buy it either pre-mixed or in powdered form.

To store the clay, form it into balls about 3 inches in diameter. Make a hole in the center of each ball with the thumb. Fill this with water. Place clay balls in a large crock, tightly covered. Check frequently to be sure it is moist.

Two- and three-year-olds will pound, pat or roll the clay. They usually like it quite wet. Older children are more interested in modeling it. The only tools they need (for candles on a cake or legs on a dog) are toothpicks or flat sticks.

Given a place to work—away from draperies, on protected floors, and a minimum of restriction and guidance — your children will enjoy many hours of play that is both satisfying and stimulating. V



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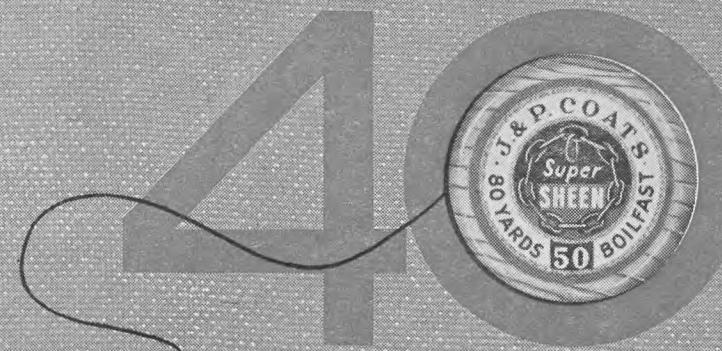
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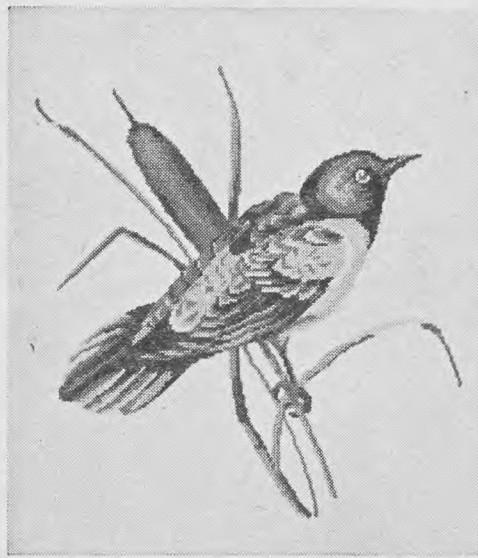
M-171. Pepita is an appealing portrait of a Mexican girl. Her yellow straw hat and a nosegay bright with orange and red tones are the color accents. Petit point kits in 2-thread (3 in. by 4½ in.) and 3-thread (3½ in. by 5½ in.) are \$3 each. Wool kit featuring a gray-green background color (11½ in. by 15 in.) is \$5.75. The chart alone without thread or canvas is 75¢.



M-170. Pepe, with his straw hat and brilliant blue, red and gold scarf, completes a pair of Mexican pictures. Petit point kits are available in 2-thread (finished measure 3 in. by 4½ in.) and 3-thread (3½ in. by 5½ in.) priced at \$3 per kit containing chart and thread. A wool needlepoint kit including gray-green background color is \$5.75. Chart alone, 75¢.



M-168. This English garden scene features a riot of flower colors in the foreground, leaf greens and blue sky beyond the trim thatched cottage. Petit point kits are available in 2-thread (4½ in. by 6½ in.) and 3-thread (6 in. by 8½ in.) at \$4.95 each. Needlepoint kit in wool (13 in. by 18 in. picture) is \$9.50. Chart alone may be ordered, \$1.50.



This brilliant orange and black Oriole perched on a brown bullrush is a companion picture to the Blue Jay offered earlier. Petit point kits in 2-thread (5 in. by 6 in.) and 3-thread (6 in. by 7½ in.) are \$3 each. Chart without thread 75¢. Order kit No. M-158.

Note: As in previous Jean McIntosh kits, these pictures are worked from a graph chart. The design is not stamped on the canvas.

For handicraft patterns pictured above please address your order to The Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

Back to School



9882



No. 9882. A V-necked weskit is shown with skirt full with pressed box pleats. Double-breasted and U-necked weskit styles are included. Girls' 7, 8, 10, 12, 14; price 50¢.



9850



No. 9850. Jumper bodice front may be bias-cut or straight above a full skirt. Shirt-blouse features Peter Pan collar, cuffed set-in $\frac{3}{4}$ sleeves. Girls' 7, 8, 10, 12, 14; 50¢.



9911

No. 9911. A button-trimmed tabbed front bodice, contrasting Johnny collar and a pleated cummerbund midriff are school fashion features. Girls' 7, 8, 10, 12, 14; price 50¢.



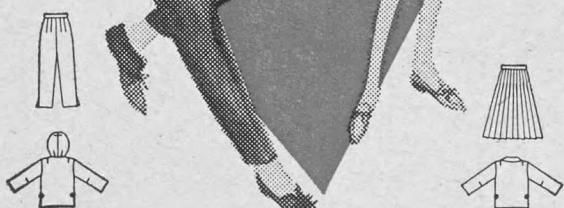
9884



No. 9884. This dashing double-breasted dress has a side zipper closing. Contrasting collar and cuffs add a fresh note. Patch pockets are optional. Girls' 7, 8, 10, 12, 14; 50¢.



9910



9908



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ROLLED OAT BREAD

Rolled-Oat Bread with its nutty flavour and moist—yet light—old-time texture! Just follow this simple step-by-step recipe:

You'll need: 2 c. milk, 2 c. rolled oats, 2 tbsps. granulated sugar, 2 tps. salt, 2 tbsps. shortening, 2 tbsps. molasses, $\frac{1}{2}$ c. lukewarm water, 1 tsp. granulated sugar, 1 envelope Fleischmann's Active Dry Yeast, $3\frac{3}{4}$ c. (about) pre-sifted all-purpose flour.

1. Scald milk. Combine rolled oats, the 2 tbsps. sugar, salt, shortening and molasses; stir in scalded milk. Cool to lukewarm.

2. Meantime, measure lukewarm water into a large bowl; stir in the 1 tsp. sugar. Sprinkle with yeast. Let stand 10 mins., then stir well. Stir in lukewarm oat mixture and 1 c. of the flour. Beat until smooth and elastic. Work in sufficient additional flour to make a soft dough—about $2\frac{3}{4}$ c. more.

When you bake at home use the yeast you can count on ... Fleischmann's Active Dry Yeast, for baking at its best! Try this home-baked-good

3. Knead on floured board until smooth and elastic. Place in greased bowl. Grease top. Cover. Let rise in a warm place, free from draft, until doubled in bulk—about $1\frac{1}{4}$ hours.

4. Punch down dough. Turn out and knead until smooth. Divide into 2 equal portions. Cover with a tea towel and let rest 10 mins. Shape each portion into a loaf and place in a greased loaf pan ($4\frac{1}{2} \times 8\frac{1}{2}$ inches, top inside measure). Grease tops. Cover. Let rise until doubled in bulk—about 40 mins. Bake in a hot oven (400°) 45 to 50 mins. Makes 2 loaves.

Get this beautifully illustrated, full colour recipe booklet, "When you Bake—with Yeast". Send 25¢ in coin or 10 empty Fleischmann's Yeast envelopes to:

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Keeping Busy Pays

EDIE and Murray Taylor are in the berry business and they have bankbooks to prove it. The sale of fruit from 9 rows of strawberry plants and 2,000 raspberry canes founded their accounts. Their first crop, picked and sold last year, yielded 1,900 boxes of fruit which sold for an average price of 3 boxes for \$1. They had agreed that Edie would reap the strawberry returns and Murray the money from raspberry sales.

"I did better last year," Edie told me, "but I think Murray will this season!" Cool, damp weather and an experiment in second fruiting from the strawberry plants might be reasons for this prediction.

Although the young Taylors bank the proceeds, the berry project is a family enterprise. Until 3 years ago, the family had a thriving dairy farm just north of their present home at Rockwood, Ont. Ill health caused Mr. Taylor to sell the dairy operation and in 1958 he bought $4\frac{1}{2}$ acres fronting on Highway 7, which with $6\frac{1}{2}$ adjoining acres of the old farm makes up their present property.

Both Mr. and Mrs. Frank Taylor feel that young people are happier with plenty to do. Edith and Murray had worked as berry pickers at a nearby farm, where berries are big business on a contract basis, and liked working with fruit. The land lay available. These factors started the Taylor berry patch business.

Murray and his dad do most of the weeding and plant care. Taking the phone orders and filling them falls to Edie and her mother. Picking



TODA photos
Edie Taylor, 18, takes turns with brother Murray at card table stand.

every second day is a family affair which requires the efforts of all four.

While they have learned that even a small berry patch can be profitable, the Taylors are learning all the time about berry culture. They started with four varieties in the original strawberry patch and wish they had diversified the raspberry planting for a longer season. Pocahontas has proven the best-selling of their strawberries. It is good-looking and customers seem to prefer it for freezing. Premier is popular, too, but rather soft to pick. The berries have sold so well Mrs. Taylor hasn't had occasion to test her feeling that the softness of the Premier strawberries would limit their keeping. The most the Taylors have ever held over from one day to the next is four boxes. They've had no need for cool storage facilities.

Sparkle is Mrs. Taylor's favorite of their four varieties although it's a little harder to pick. Its darker color doesn't sell so well to buyers at the roadside stand, but people who know it like the sweeter full flavor and good jam color.

Senator Dunlop is the least liked variety in the Taylor patch, as the



Mr. and Mrs. Frank Taylor pick in pairs on one row while helping Edie and Murray harvest strawberries. Straw left between rows produced clean berries.

fruit seems to grow small and woody after two pickings.

The original strawberry planting would normally have been plowed in after its second year, but neighbor John Clark, of the Ont. Dept. of Agriculture, persuaded the Taylors to try a new technique he had read about. After the last picking in the plants' second year, the Taylors took the lawn mower to the strawberry patch. Mowing allows new leaves to develop unshaded by older leaves.

In Mr. Taylor's words, they have found that "It's awful hard keeping plants clean the second year." So, instead of removing the straw cover laid down for winter, he and Murray loosened it with forks but left it in place around the plants. The berries picked this summer from their straw surroundings have been so clean they didn't need washing and there's been no weeding in that patch. It is important, they point out, that you take the straw from clean fields so that you don't bring in weeds.

This year Murray and his father are going to plow the strawberry rows to a width of 6 in. to stimulate new growth. If the fall months should be dry and produce few runners the plants will have to be plowed in. But if it works, the Taylors will have a third fruiting from their original strawberry planting. Until now, they have been using the tractor in the berry patch. This has meant they must leave at least 5 ft. of space between rows. This fall they plan to buy a rototiller so they can till plants spaced 3 ft. apart.

This will be important for the new plants begun this year. Fifty each of eight strawberry varieties recommended by the Ontario Agricultural College horticulture department are growing side by side in rows which permit the Taylors to compare their progress. This patch is on soil never planted before, a hilltop field sheltered on all sides by natural woods. The field is part of the original farm but couldn't be reached because of a deep ravine. A less rugged extension of the same ravine separates it from the family's new home but they have bulldozed a road through.

The close contact they have had with OAC at Guelph isn't limited to the Taylor berry enterprise. Murray received one of his early awards for public speaking at a competition there. At 15, he is entering Grade 11 this fall and plans to attend OAC as an agricultural student after high school. Eighteen-year-old Edith is enrolling in Teachers College at Hamilton this year and may well supplement her wardrobe again from the berry profits as she did for her last year in high school.

The Taylor berry patch profits have come from direct sales to customers. Edith and Murray both attend the highway stand when picking yields more than phone orders require. Strawberries seem to sell better than raspberries at the stand, as tourists will buy fruit for a travel snack and seem to prefer the strawberries. Most of the raspberry crop is sold locally for preserving. The volume of their phone order sales points up the value of quality fruit.

The young Taylors and their parents endorse their berry patch experiment as a worthwhile enterprise. —G.L.

IN THE KITCHEN



Dairy foods service bureau home economists Jocelyne Leduc and Ethel Green, and director Marie Fraser at work. [Alex Gray photo]

A Kitchen to Visit

by GWEN LESLIE

WHAT is friendlier than a kitchen visit? I've just visited a new one—a unique farmers' kitchen set in the heart of one of our largest cities—Toronto! It's the center of the dairy foods service bureau in the new Dairy Farmers of Canada offices at 147 Davenport Road.

The first such kitchen to be operated by a producer group in Canada, it is being used by the three staff home economists to develop and test the dairy foods recipes they distribute. They also demonstrate the use of dairy foods to interested groups, and the kitchen has audience seating space adjacent to it. The experience the girls gained in planning their kitchen and supervising its construction is available to visitors too, so if you're remodeling your farm kitchen there are ideas galore for you in this one.

The vibrant turquoise and blue wall colors selected for the room's western exposure set off the handsome birch cupboards, stained a warm nutmeg shade. The cupboard shelves are all adjustable for storing kitchen utensils and supplies to best advantage.

If you are able to visit the test kitchen, alone or with a pre-arranged group, you'll see the latest design and materials in equipment, appliances and cookware, for it's actually two kitchens side by side—one electric and one gas.

These recipes are a sampling of the fine dairy dishes prepared by the bureau staff.

Cheese Souffle Salad

3 oz. pkg. lemon jelly powder	1 T. grated onion
1 c. hot water	3/4 c. shredded sharp cheddar cheese
1/2 c. cold water	3 hard-cooked eggs, diced
1/2 c. mayonnaise	1/4 c. chopped green pepper
1 T. lemon juice	2 T. chopped pimiento
3/4 tsp. salt	
4 drops tabasco sauce	
1/2 c. chopped celery	

Dissolve jelly powder in hot water. Add cold water, mayonnaise, lemon juice, salt and tabasco sauce. Blend well, and chill until partially set. Beat with a rotary beater or electric mixer until fluffy. Fold in remaining ingredients and pour into a 1-qt. mold. Chill until firm. Unmold on crisp salad greens. Yields 6 servings.

Quick Cheese Bread

1 1/2 c. grated sharp cheddar cheese	1/2 tsp. salt
1 T. sugar	1/4 tsp. dry mustard
2 c. sifted all-purpose flour	1 egg, beaten
4 tsp. baking powder	1 c. milk
	1/4 c. butter, melted
	Paprika

Combine cheese with sugar and sifted dry ingredients. Combine beaten egg with milk; add slowly to flour mixture, beating just to blend. Fold in the melted butter. Pour into a greased 3 by 5 by 8-in. loaf pan and sprinkle with paprika. Bake in a moderate oven at 350°F. for 40 to 45 min.

This bread cuts more easily the second day.

Banana Fluff

1 T. unflavored gelatin	2 large bananas, mashed
1/4 c. cold water	Juice of 1 lemon
1 1/2 c. milk, scalded	1 c. whipping cream, whipped
1/2 c. honey	

Soften gelatin in cold water. Dissolve in hot milk. Add honey, bananas and lemon juice. Chill until partially set, then fold in whipped cream. Pour into a mold or into individual serving dishes and chill until set. Garnish with banana slices to serve. Yields 6 servings.

Butter Balls

1 c. soft butter	2 c. sifted pastry flour
1/2 c. sugar	1 c. finely chopped nuts
1/2 tsp. salt	
1 tsp. almond extract	

Cream butter and sugar; add remaining ingredients gradually and blend well. Chill dough until easy to handle, then shape into 1-in. balls and place on a lightly greased cookie sheet. Bake in a moderate oven at 350°F. for 15

to 18 min. or until delicately browned. While cookies are warm, roll them in powdered sugar. Yields 4 to 5 doz. cookies.

If preferred, nuts may be omitted from the dough, and balls dipped in chopped nuts before baking. Raw dough balls may be topped with a sliced cherry or nut garnish before baking.

Chocolate Nut Cups

2 T. butter	1/4 c. finely chopped nuts
6-oz. pkg. semi-sweet chocolate	Ice Cream pieces

Melt butter and chocolate together in top of double boiler. Stir to blend, add nuts and mix well. Cool to a spreading consistency. To make cups, spread mixture on inside of paper baking cups, using the back of a teaspoon to distribute evenly. Chill until firmly set. Tear paper carefully from chocolate cups and fill shells generously with the ice cream of your choice. Yields 6 to 8 servings.

Lemon Oatmeal Tartlets

2 eggs, well beaten	1 1/2 c. sifted pastry flour
1 c. sugar	2/3 c. butter
1/4 c. butter	1/2 c. quick-cooking rolled oats
2 T. grated lemon rind	4 to 6 T. cold water
1/4 c. lemon juice	
1 tsp. salt	

Combine eggs and sugar in top of double boiler. Add 1/4 c. butter, lemon rind and juice. Cook gently over boiling water, stirring constantly until mixture thickens. Cool.

Pastry: Sift flour and salt together. Cut in 2/3 c. butter until mixture resembles coarse crumbs. Add rolled oats and mix lightly. Add water, a little at a time, stirring lightly until pastry can be formed into a ball. Roll out thinly on a floured board and cut in 3-in. rounds. Fit into small tart pans; prick bottom and sides of shells with fork. Bake in a hot oven at 425°F. for 10 to 12 min. Cool thoroughly and fill with lemon butter filling. Top with bits of cherry, if desired. Yields about 3 doz. small tarts.



Falls and stumbles kill 26

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DR. C. D. GRAHAM
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Word Magic

by FLORENCE A. GRITZNER

Can you make magic with words? Of course you can. Try putting the letters of the words in capital letters in different order to turn one thing into another and you will see what we mean.

1. Turn a CHARM into a month.
2. Turn a MEAL into a man.
3. Turn a LUMP into a fruit.
4. Turn CORAL into a song.
5. Turn a CHIN into part of a foot.
6. Turn PLANES into a city.
7. Turn a SKATE into meat.
8. Turn a THORN into a direction.
9. Turn a SLATE into stories.
10. Turn GATES into a platform.
11. Turn a FLEA into a part of a plant.
12. Turn a STEW into a direction.
13. Turn EVIL into hat trimming.

Answers

1. March	8. North	7. Steak	13. Well
2. Male	9. Tales	6. Napples	12. West
3. Plum	10. Stage	5. Inch	11. Leaf
4. Carol	11. Stage	4. Coral	10. Stage
5. Inch	12. West	3. Plum	9. Tales
6. Napples	13. Well	7. Steak	1. March

Mother Hen Moon

*Mother hen moon in the midnight sky
Cluck-clucks to her baby chick stars nearby,
But the naughty star chickens just twinkle away;
From Neptune to Saturn to Mars they play.*

*They tip their heads as they take a drink
From the Milky Way on the midnight's brink.
When mother hen moon cautions:
"Come, chickens, do!"
They peep: "No! We'll frolic the whole night through!"
But the storm wolf leaps, with red eyes aglow,
And the frightened star chickens run high, run low,
To the mother hen moon's safe and comfortable nest
On a bank of gray clouds in the midnight west!*

—FRANCES GORMAN RISER.

TREES

Trees	Grow tall
Stand straight	Are colored green
Some grow apples or pears	Some grow nothing but leaves and seeds
I	Like
Trees	

What Farm Organizations Are Doing

OFA STUDIES FEED GRAIN SITUATION

Expectations that the drought in Western Canada would cause high feed costs for Ontario livestock and poultry farmers prompted the **Ontario Federation of Agriculture** to call a special meeting on the problem last month.

Although feed prices were rising because of the expected shortages, the meeting was told that farmers need not panic. Conditions in the West were bad in some areas, but not so serious yet in areas where most of the feed grains are produced. Observers felt that feed grain supplies would probably be adequate for the coming winter.

However, western feed grain prices could climb higher than they already have. If they do, it was suggested the OFA:

- Recommend that Ontario farmers use Ontario wheat for feed purposes.
- Discover and publicize methods of transporting Ontario wheat from production to consumption areas.
- Provide information on feed prices and on what farmers can do to ward off increased costs.

- Urge the Federal Government to make public storage available for Ontario wheat so it can be held for any emergency that might arise.

- Request the OAC to compare western feed wheat with Ontario wheat from nutrition and price standpoints, so that advice could be given to farmers on how to substitute Ontario wheat in feed rations.

- Acquaint the Canadian Wheat Board with the requirements of Eastern farmers, and ask the Board to keep a supply of coarse grains available at the Lakehead for eastern farmers during the critical period of 1961-62.

NFU ASKS AID FOR DROUGHT AREAS

The National Farmers Union, meeting in Winnipeg in July, considered a wide range of resolutions, among them, measures to assist drought-stricken farmers. The meeting called on the Federal Government to help prairie producers by:

- Designating prairie areas suffering from crop failure as disaster areas;
- Placing embargoes on cattle sales if these become necessary, and

MEN PAST 40

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immediately implementing support prices on all grades of cattle at June 1 levels;

- Making drought payments of \$5 per seeded acre to a maximum of \$1,000;
- Suspending all loan payments for 1 year;
- Ensuring the movement of feed from surplus supply areas to drought areas;
- Providing grain advances, comparable to cash advances, through elevator companies;
- Negotiating for surplus U.S. corn, if Canadian feed supplies become exhausted.

While the meeting agreed that farmers should be educated to the importance of building up at least 1 year's reserve of feed and fodder on the farm, it decided to ask Federal and provincial governments to institute a feed reserve program. It also asked for more adequate Federal support for provincial crop insurance programs.

Resolutions affecting Canadian Wheat Board operations requested:

- Revision of the regulations to make all feed mills agents of the Board; and that purchases by feed mills be made at Board prices and under Board quota regulations, with all such sales to be recorded in permit books.
- Control and regulations of grades and prices of western feed grains shipped to Eastern Canada in the same manner as within the Prairie Provinces; and storage of western feed grains in government-owned elevators at Ontario ports.
- One resolution asked for an amendment to the Prairie Farm Rehabilitation Act to include all agricultural areas in Canada.
- Another asked for legislation that would require milk to be priced on its solids content rather than its butterfat content as at present.

CFA CENSURES BROADCASTING COMMITTEE REPORT

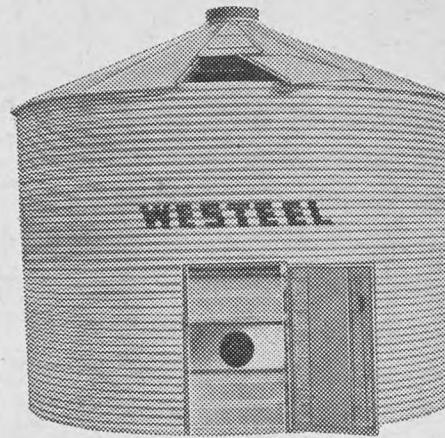
The Canadian Federation of Agriculture president, H. H. Hannam, has called the report of the Special Committee on Broadcasting of the House of Commons both disappointing and disturbing.

The Committee's most important recommendations, according to the Federation, weaken the application of the principles of a national broadcasting system operated in the public interest, and seem to suggest a lack of confidence in the CBC which is unjustified.

The Committee's decision to recommend that the CBC should no longer have the authority to grant or deny to its television network affiliates permission to join other television networks is ill-advised, Mr. Hannam said. This proposal was opposed by the CBC and the Board of Broadcast Governors. If the recommendation is implemented, the ability of the CBC to do its job for the people of Canada would be greatly weakened.

The Federation sees no need to recommend, as the Committee has done, that executive officers of the CBC should be barred from sitting on the Corporation's Board of Directors. The Committee Report gives no reason whatever for this recommen-

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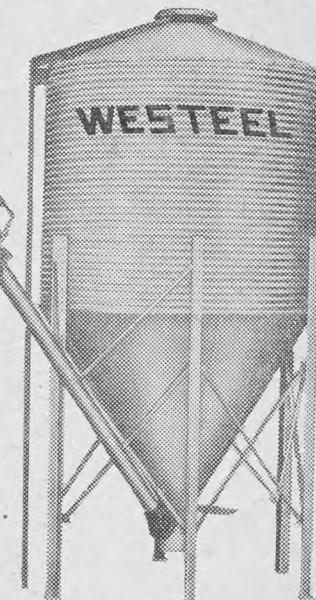
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dation, which can be looked upon as an expression of non-confidence in the present president of the Corporation and in the policies of the Corporation. The Federation can see no basis for any such lack of confidence. If to give an impression of non-confidence was not the intention of the Committee, the Federation considers its failure to make its position clear in this regard a very serious oversight.

The recommendation that the 5-year projections of plans by the Corporation be subject to annual review is in the wrong direction, the Federation believes. The need is for more certainty in planning by the Corporation, for firm financial commitments for public funds over long periods of time, and for statutory provisions relating to such commitments. Instead, this recommendation is in the direction of increasing the insecurity of the Corporation's position, thus weakening its ability to plan ahead effectively.

As a document dealing with the problems and policies of broadcasting, the report is one that conveys little information and no inspiration to the public. Its effect is negative and tends to be unjustifiably destruc-

tive of the nation's confidence in the performance of the CBC, Mr. Hanham concluded.

WANT CHEESE QUOTA ELIMINATED

Americans should no longer be deprived of the right to buy fine Canadian cheese, the United States Tariff Commission was told in joint brief presented on behalf of the Canadian cheese industry. The representations called for elimination of the U.S. quota which currently restricts imports of properly aged Canadian cheddar to about one-half a million pounds annually. The brief pointed out Canadian cheddar has a unique flavor and quality for which Americans willingly pay a higher price than they do for their own cheese. Unfortunately, the present quota prevents them from buying all they wish. The appeal to eliminate the quota was made by Lloyd Stephens of Toronto on behalf of the National Dairy Council of Canada, the Canadian Federation of Agriculture, the Dairy Farmers of Canada, the Ontario Cheese Producers' Assoc., the Ontario Cheese Manufacturers' Assoc., and members of the Canadian cheese trade.



Hi FOLKS:

If this was a detective story you might call it "The Case of the Falling Barometer." But it isn't, so you can call it whatever you like.

You might say it all began the night I won a new "Citation" spinning reel at our local Legion draw. Seeing as I now had two reels, Ted Corbett informed me he just might be interested in buying my old one, providing the price was right. My old reel was a "Century" — good as the new one in every way except it won't take a 10-pound-test line.

Next day, when I ambled over to Ted's to see if we could make a deal, he acted as evasive as a trout in shallow water.

"I don't favor doing any business when the barometer is falling," he told me. "Seems to me I read where some fella claimed you should steer clear of all deals when a storm is in the air. How much do you want for it anyway?"

"Well sir, it cost me \$20, as you know. But I figure to let you have it for ten. After all, that's what friends are for."

"I know it only cost you eighteen," he corrected. "If you treat your friends like this I'd sure hate to be an enemy of yours."

"Eighteen ninety-five, if we're being exact," I said coldly. "And speaking of friends, I seem to recall a .22 rifle you sold me sometime back. It had a piece of shell casing jammed halfway down the barrel."

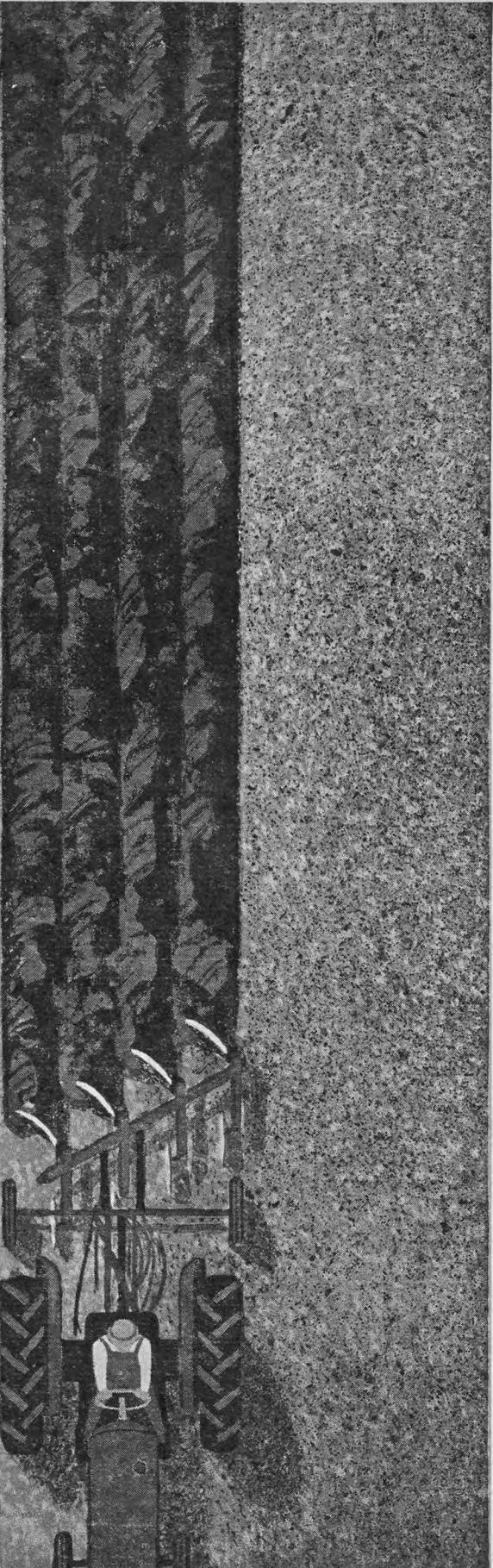
"This here fella called himself a weather economist," Ted reflected. "He says a falling barometer makes humans moody, cantankerous and hard to get along with—like some people I could name. I ain't in any hurry. Maybe the weather will pick up tomorrow so you'll feel better. A happy, contented man isn't likely to try to take advantage of a friend."

"I'm not trying to take advantage of ANYBODY!" I exploded. "You can take the darn thing for a couple of dollars for all I care!"

"Sold," he said quickly, reaching for his wallet. "I won't haggle over it. If you'll just hand the reel to me I'll fit it onto my rod. That weather economist also advises people to fishing on a falling barometer — avoid even the littlest dissentient such as a debate with a friend."

Which was just as well. The one debating I felt like doing right there was the kind where you use clichés instead of words. And I don't think the weather was to blame one bit.

Sincerely,
PETE WILLIAMS.



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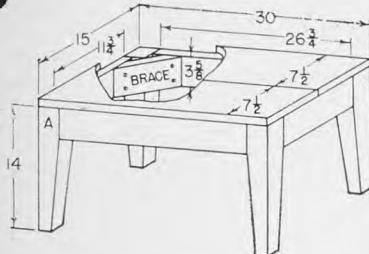


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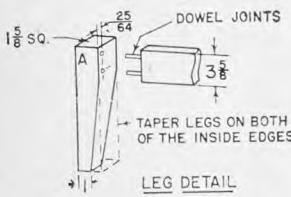
How to Make a Hassock

by C. RAYMOND

HASSOCK can be made by the home craftsman to have that finished furniture look. The legs are made of 2" by 2" lumber, tapered down in the diagram. Start the taper 3 $\frac{1}{8}$ " from the top end of the leg. The stringers are made of 1" by 4" lumber. Use a miter box to help cut square ends.



The legs and stringers are assembled with dowel joints. Dowel holes 3 $\frac{1}{8}$ " in diameter are drilled with a No. 6 auger bit. The holes are drilled 1" deep. Cut the dowel pins 1 $\frac{1}{4}$ " long and groove them to provide a tight joint. The braces are cut from 1" by 4" lumber. Assemble them to the frame with No. 10 flathead screws, 1 $\frac{1}{4}$ " long.



Make the top of 1" by 8" lumber. Fasten with 6-penny finishing nails.

Cover the stool with foam rubber and upholstery material. Use decorative tacks to fasten the material. ✓

Takes Leaves From the Poplar

THE forest tent caterpillar, enemy of the Canadian poplar, is becoming a menace again in north-central Alberta. The present outbreak started in 1957 in the Elk Point district, and last year the caterpillars were defoliating thousands of acres of poplar east of Edmonton and in the Peace River region. They can be expected to be abundant over a large area of northeast-central Alberta this season.

Although the tent caterpillar prefers poplar, it feeds also on fruit trees and many shrubs. When fully grown, the insect is bright blue along its sides, and has a row of keyhole-shaped, white markings along the back. The rest is black, with long, reddish-brown hairs.

According to C. E. Brown of the Calgary forest biology lab., the tent caterpillar strips leaves from trees in early summer, but the trees produce a new crop of leaves in July and recover partially. Complete defoliation for 4 to 6 years will kill the trees, but infestations seldom last that long in Alberta.

Farmsteads can be protected by spraying a buffer strip about 400 feet wide around them. DDT is usually recommended. ✓



Bantam Weight

At first glance, you might think this fellow couldn't swing up a chain saw that easily after cutting wood all day.

But look at it this way: the saw he's got is the Remington "Bantam". And with that 18" bar on it, he's lifting just about 20 pounds. Which isn't much — not when you consider the work a "Bantam" can do.

You can use it for just occasional cutting. Or for trimming limbs and bucking. Or you can work a wood-lot with it. You see, even though the "Bantam" is priced for the once-in-a-while user, it's built for the all-day cutter.

It's got the patented roller-bearing nose you see on all Remington chain saws, the patented nose that makes cutting less work because it

spins the chain smoother, faster. It's got a Remington-built engine that's as steady and solid as a draft horse. And look how all the controls are right at your fingertips.

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M-250 4 wheel drive
with 8 ft. Flareside Body



M-100 with 6½ or 8 ft.
Integral Cab and Body

competitors

Which one of these low price Mercury Pickups should you choose? Frankly, you're the one to decide which is best suited for your farm job. But one definitely is. Want real operating economy combined with $\frac{3}{4}$ ton load-space, see the Econoline Pickup. Want a comfortable ride, low initial cost and a choice of more powerful Six or V-8 engines? See the nifty, thrifty M-100 with integral cab and box. Want a truck to carry bigger loads, a truck with a payoff-proved reputation for durability among farmers and truck operators? Try a Mercury 250 or 350 Pickup. Need a truck with traction plus to get out of ruts, over rough roads and up steep hills, get Canada's lowest price 4-wheel drive pickup, the M-100. Also available in the 250 series. On all models, reduced front overhang stops bumper scraping in and out of gullies. **Every model dealer warranted for 12,000 miles or one full year, whichever comes first. Parts and service available everywhere.** See what we mean? You get full value no matter what pickup you pick up at your local Mercury Dealer. See him soon, he's a farm truck specialist.

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